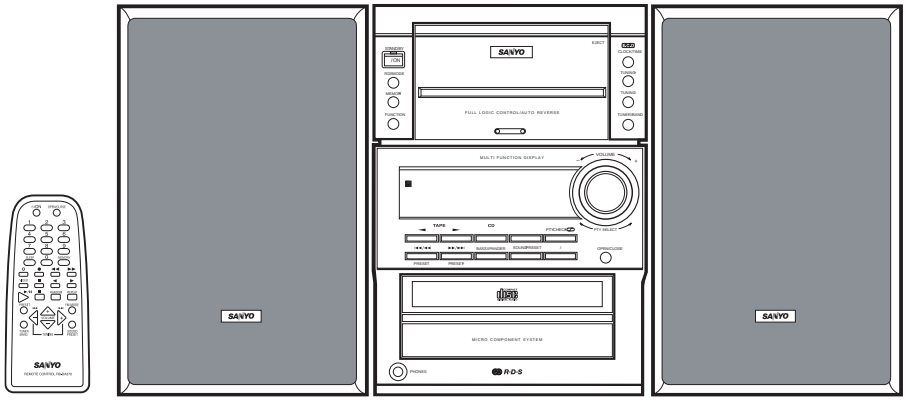
SANYO

FILE NO.

Service Manual

Micro Component System

DC-BM500 (XE) (KR) (TW)



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PRODUCT CODE No.
129 614 00 (XE)
129 614 01 (KR)
129 614 07 (TW)

XE: This service manual consists of "DC-500U/XE" (Main unit : 129 615 00), "SX-BM500L/ XE" (Speaker system : 165 041 00) & "SX-BM500R/XE" (Speaker system : 165 042 00).

KR: This service manual consists of "DC-500U/KR" (Main unit : 129 615 01), "SX-BM500L/ KR" (Speaker system : 165 041 01) & "DC-BM500R/KR" (Speaker system : 165 042 01).

TW: This service manual consists of "DC-500U/TW" (Main unit : 129 615 07), "SX-BM500L /KR" (Speaker system : 165 041 01) & "DC-BM500R/KR" (Speaker system : 165 042 01).

REFERENCE No.SM5810247

SPECIFICATIONS

Tuner

Reception frequency:

FM :87.5 - 108.0 MHz
AM : 522 - 1710 kHz (TW)
522 - 1710 kHz (9 kHz step) (KR)
520 - 1710 kHz (10 kHz step)(KR)
MW: 522 - 1611kHz, 9 kHz step (XE)
520 - 1610 kHz,10 kHz step (XE)
LW : 144 - 288 kHz (XE)

CD player

Channels ..... 2-channel stereo
Sampling frequency ..... 44.1 kHz
Pick-up ..... Optical 3-beam semiconductor laser
Wow and Flutter ..... Below measurable limits
Wave length ..... 790 nm
Laser output ..... 0.6mW(Continuous wave max.)

Cassette deck section

Track system ..... 4-track, 2-channel stereo
Frequency response ..... 60 Hz - 13.5 kHz
Signal to noise ratio ..... 50 dB
Wow and Flutter ..... 0.12% (WRMS)
Fast forward / Rewind time .... Approx. 110 sec. (C-60)

General

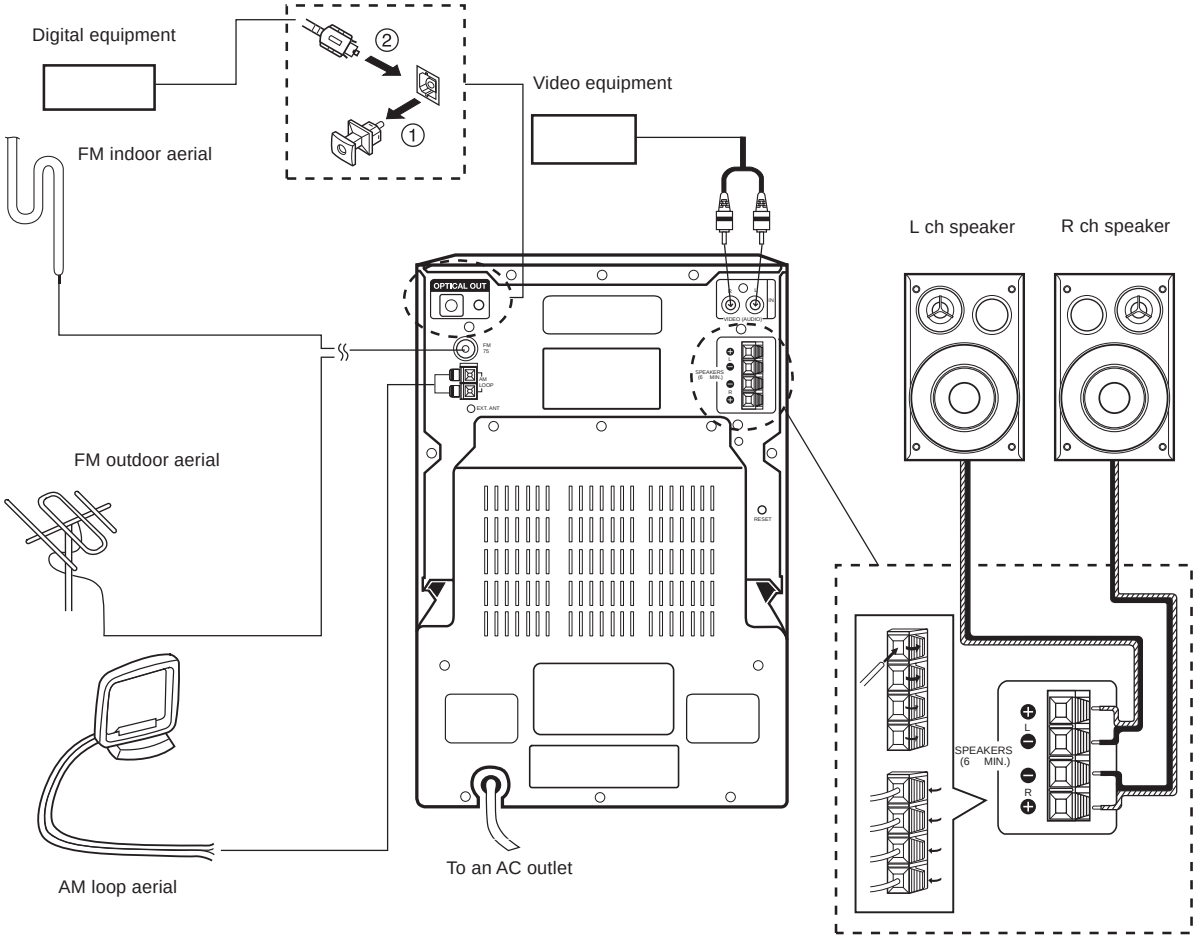
Output power ..... 20 W x 2 (at 6 ohms, 10% distortion) (XE)
Inputs ..... VIDEO IN : 500 mV / 50k ohms
Outputs ..... SPEAKERS : 6 ohms
PHONES : 8 - 32 ohms
OPTICAL OUT:Optical (XE,KR)
Power requirements ..... AC 230V, 50Hz (XE)
AC 220V, 60Hz (KR)
AC 110V, 60Hz (TW)
Power consumption ..... 50 W
Dimensions (W x H x D) ..... Approx. 200 x 285 x 294 mm
Weight ..... Approx. 5.1 kg

Speaker system

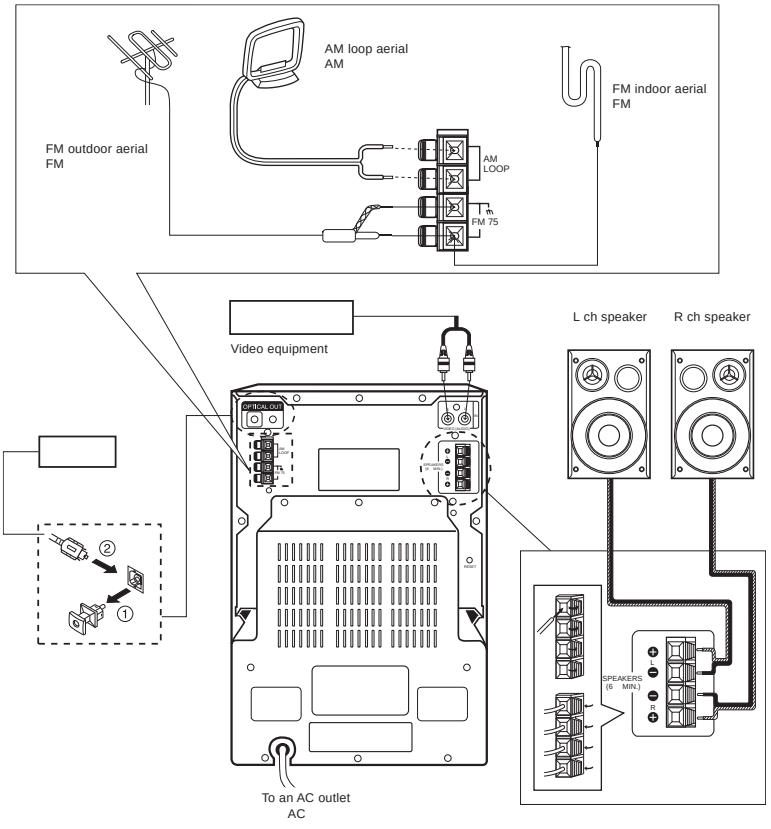
Type ..... 2 way bass reflex
Unit used : Woofer ..... 12 cm cone type
: Tweeter ..... 3.5 cm balanced driver
Maximum power-handling capacity 40 Watts (peak)
Nominal impedance ..... 6 ohms
Dimensions (W x H x D) ..... Approx. 181 x 284 x 192 mm
Weight ..... Approx. 2.4kg (per speaker)

Specifications subject to change without notice.

SYSTEM CONNECTIONS (XE)



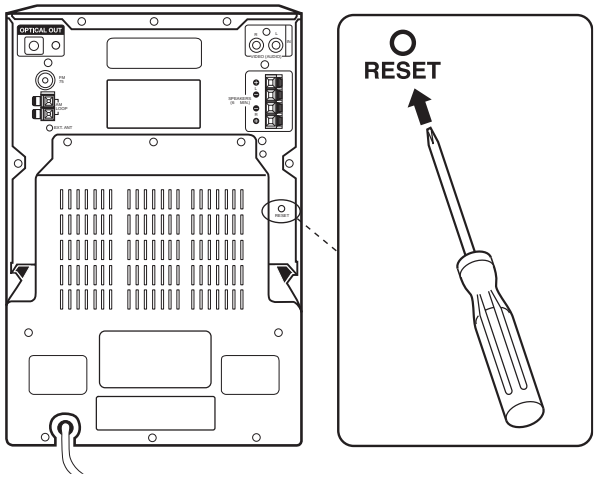
SYSTEM CONNECTIONS (KR & TW)



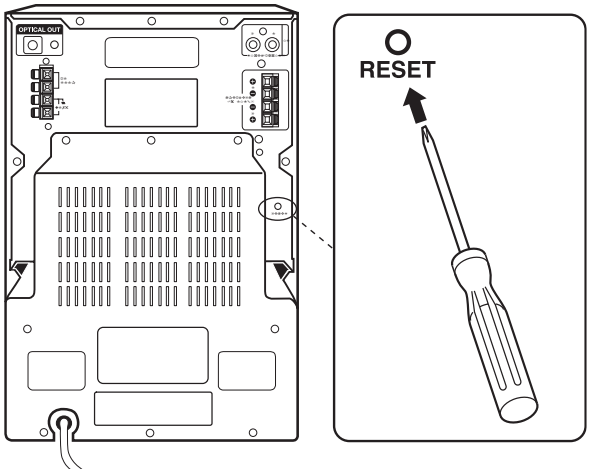
WHAT TO DO IF

If the operation of the unit or display is not normal, even though the appropriate buttons have been pressed. Disconect the power cord from the AC outlet, then press "RESET" (rear of the unit) for at least 30 seconds.

FOR XE



FOR KR, TW



LASER BEAM SAFETY PRECAUTION

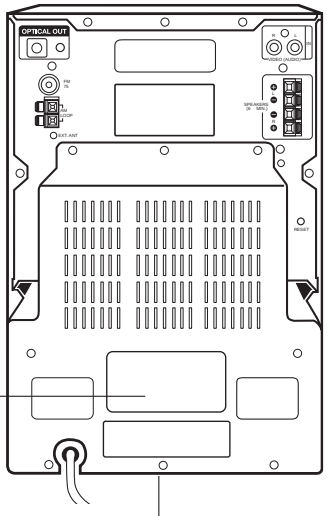
- Pick-up that emits a laser beam is used in this CD player section.

(For XE Only)

CAUTION :
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE

LASER OUTPUT ..... 0.6 mW Max. (CW)
WAVELENGTH ..... 790 nm

(For XE Only)



(For XE & KR)

CAUTION INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL USYNLIG LASER STR LING VED BNING, N R SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDG UDS TTELSE FOR STR LING.
VARNING OSYNLIG LASER STR LNING N R DENNA DEL R PPNAD OCH SP RR R URKOPPLAD. STR LEN R FARLIG.
VORSICHT UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GE FFNET UND WENN SICHERHEITSVERRIEGELUNG BERBR CKT IST. NICHT, DEM STRAHL AUSSETZEN.
VARO AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA N KYM TT M LLE LASERS TEILYLLE. L KATSO S TEESEEN.

CD PICK-UP MAINTENANCE

About pick-up (Optical lens) Cleaning

Clean a lens with swab of the cotton which moistened it with alcohol, cleaning paper or cleaning disc appointed.
Specified cleaning disc : LC-1 (Part code : 645 026 1961 ..... manufactured by SANYO.)

Show a clean procedure in the following in reference by swab of cotton.

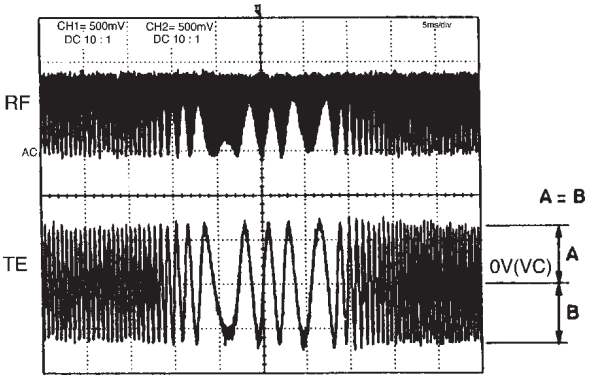
1. Cotton swab is wrapped with Cleaning paper.
2. Add the isopropyl alcohol.
3. Gently move the tip of cotton swab just like a draw a whirlpool from inside to outside on the surface of lens.

CD PLAYER ADJUSTMENTS

1. ADJUSTMENTS

(1) Confirm the tracking balance

1. Turn on the POWER switch.
2. Connect an Oscilloscope to TP2 (TE) and TP4 (VC).
3. Set the test disc.
4. Press "PLAY" button to turn into the "PLAY" mode.
5. Keep holding "SKIP" button down so as to be "SERCH" mode, then confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V (VC).

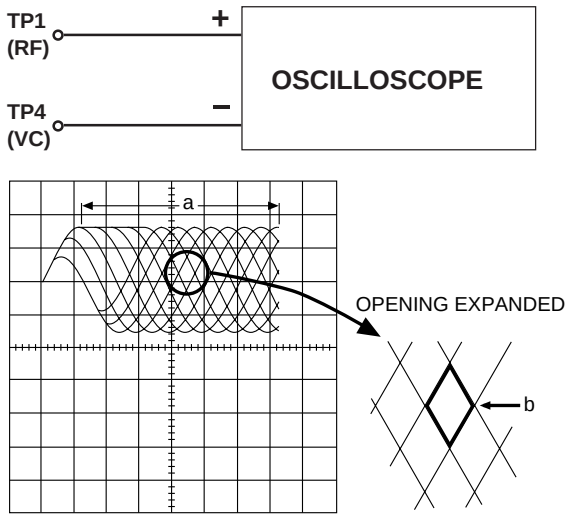


200mV/div.
5ms/div.

CD PLAYER ADJUSTMENTS

(2) Checking the "eye" pattern

1. Switch "ON" the POWER.
2. Connect an oscilloscope to TP1 (RF) and TP4 (VC).
3. Load the test disc.
4. Press the PLAY button.
5. Check to be sure that the "eye" pattern is at the center of waveform and that the diamond shape is clearly defined.
6. Press the STOP button.
7. Turn off the POWER switch.



TAPE ADJUSTMENTS

1. Azimuth Adjustment

- Be sure to clean the heads before attempting to make any adjustment.
- Be sure both channels (1 and 2) are the same level.
  (Using a dual-channel oscilloscope)
- Be sure both channel's waveform are same for the phase matching.
- After completion of the adjustment, use the threadlock (TB-1401B) to secure the azimuth adjustment screws.

1. Remove the cover deck as Fig.1.
2. Load a test tape (VTT-738 etc. : 10kHz) in the Deck.
3. Press the PLAY button. (Normal playback)
4. Use a + tip screwdriver to turn the screw for normal azimuth adjustment so that the left and right outputs are maximized at the same phase during normal playback. See Fig.1.
5. Press the PLAY button. (Reverse playback)
6. Use a + tip screwdriver to turn the screw for reverse azimuth adjustment so that the left and right outputs are maximized at the same phase during reverse playback.
7. Adjust so that the waveforms for the left and right channels are in alignment.

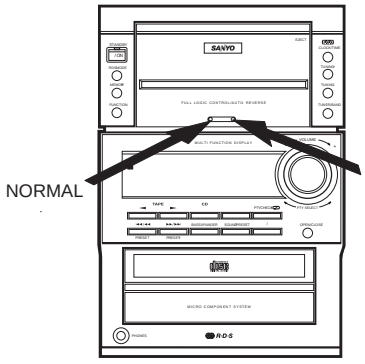
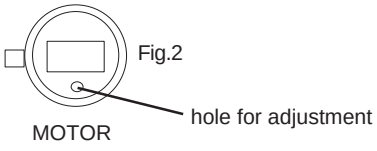


Fig.1

2. Tape Speed Adjustment

- Connect the Frequency Counter to TAPE OUT.

1. Insert the test tape (MTT-111N, etc.; 3,000Hz) into the DECK.
2. Press the PLAY button. .
3. Adjust a hole on the motor bottom so that a frequency counter reading of 3,000 ±5Hz is obtained.See Fig.2.
4. Press the STOP button, and eject the test tape.



3. Torque Measurement

Item	Take-up Torque	Back tention	Pull tention
Test Cassette	PLAY : TW2111A (FWD) PLAY : TW2121A (REV) F.FWD / REW : TW2231	PLAY : TW2111A (FWD) PLAY : TW2121A (REV)	Driving power cassette : TW-2412 (PLAY) TW-2422(REV. PLAY)
PLAY/REV.	30 ~ 65 grcm	2 ~ 6 grcm	>50grcm
F.FWD	70 ~ 140 grcm	-	-
REW	70 ~ 140 grcm	-	-

TUNER ADJUSTMENTS (XE ONLY)

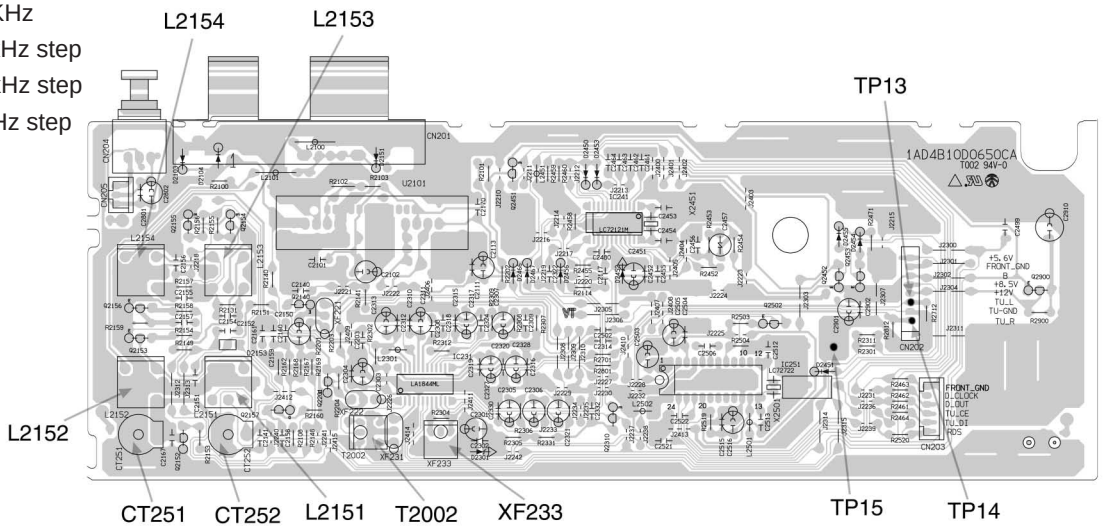
- Use a plastic screw driver for adjustments.
- MODE : ST (Stereo)
- Speaker impedance : 6 ohm
- TUNING

  FM : 87.5 - 108MHz, 50KHz

  MW: 522 - 1611 kHz, 9 kHz step

  520 - 1611 kHz, 9 kHz step

  LW: 144 - 288 kHz, 9 kHz step



Antenna : 75 unbalanced , Modulation : 1 kHz

Dev. : ±22.5kHz (MONO), 22.5kHz (STEREO) ±6.75kHz (PILOT)

RF LeveL : dBuV EMF

Output Level : about 500mW at TP13, TP14, TP15

1. FM

Step	Adjusting Circuit	Connection Input	Connection Output	SG Frequency	Adjustment	Remark
1	IF(0V) Adjustment	FM Antenna SG=66dB μV	Alignment voltage IC231 3-22pin(TP24,25) is 0.00±0.05V	98MHz	XF233	Alignment voltage IC231 3-22pin is 0.00 ±0.05V
2	Cover Voltage	---	Connect Digital DC voltmeter to TP11(H), TP12(E).	87.5MHZ	---	1.35±0.10V check only
		---		108.0MHZ	---	6.5±0.50V check only

SG Modulation : 1kHz, 30%

Antenna : IRE Loop

RF Level : dBuV EMF

Output Level : about 500mW at TP13, TP14, TP15

2. MW

Step	Adjusting Circuit	Connection Input	Connection Output	SG Frequency	Adjustment	Remark
1	IF Adjustment	LOOP ANT	Connect Sweep generator to test point TP13(L)or TP14(R) and TP15(E)	at 999kHz	T2002	AF Maximum
2	Cover Voltage	---	Connect Digital DC voltmeter to TP11(H)and TP12(E).	522kHZ	L2153	1.00±0.05V
		---		1611kHZ		7.30±0.50V check only
3	Tracking	LOOP ANT	Connect to VTVM point TP13(L)or TP14(R) and TP15(E)	603KHZ	L2151	AF Maximum
				1404kHZ	CT252	

3. LW

Step	Adjusting Circuit	Connection Input	Connection Output	SG Frequency	Adjustment	Remark
1	Cover Voltage	---	Connect Digital DC voltmeter to TP11(H) and TP12(E).	144kHZ	L2154	1.00±0.05V
		---		288kHZ	---	5.80±0.30V check only

TUNER ADJUSTMENTS (For KR & TW)

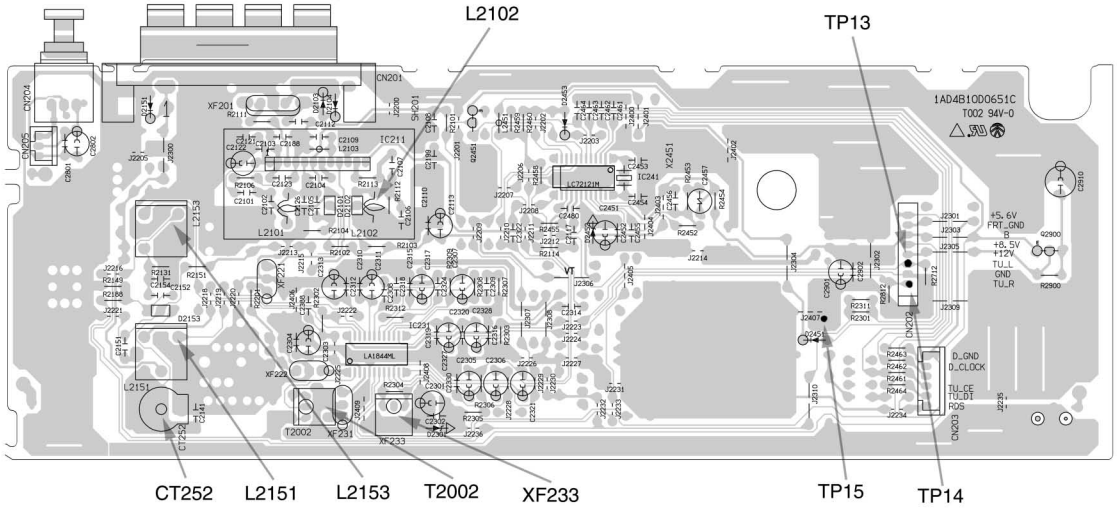
- Use a plastic screw driver for adjustments.
- MODE : ST (Stereo)
- Speaker impedance : 6 ohm
- TUNING

  FM : 87.5 - 108MHz, 50KHz step

  AM: 522 - 1710kHz (TW)

  522 - 1710KHz (9KHz step) (KR)

  520 - 1710KHz (10KHz step) (KR)



Antenna : 75 unbalanced , Modulation : 1 kHz

Dev. : ±22.5kHz(MONO) 22.5kHz(STEREO) ±6.75kHz(PILOT)

RF LeveL : dBuV EMF

Output Level : about 500mW at TP13, TP14, TP15

1. FM

Step	Adjusting Circuit	Connection Input	Connection Output	SG Frequency	Adjustment	Remark
1	IF(0V) Adjustment	FM Antenna SG=66dB µV	Alignment voltage IC231 3-22pin(TP24,25) is 0.0±0.05V	98MHz	XF233	Alignment voltage IC231 3-22pin is 0.0±0.05V
2	Cover	---	Connect Digital DC voltmeter to	87.5MHZ	---	1.00±0.05V check only
	Voltage	---	TP11(H), TP12(E).	108.0MHZ	---	6.5±0.50V check only

SG Modulation : 1kHz, 30%

Antenna : IRE Loop

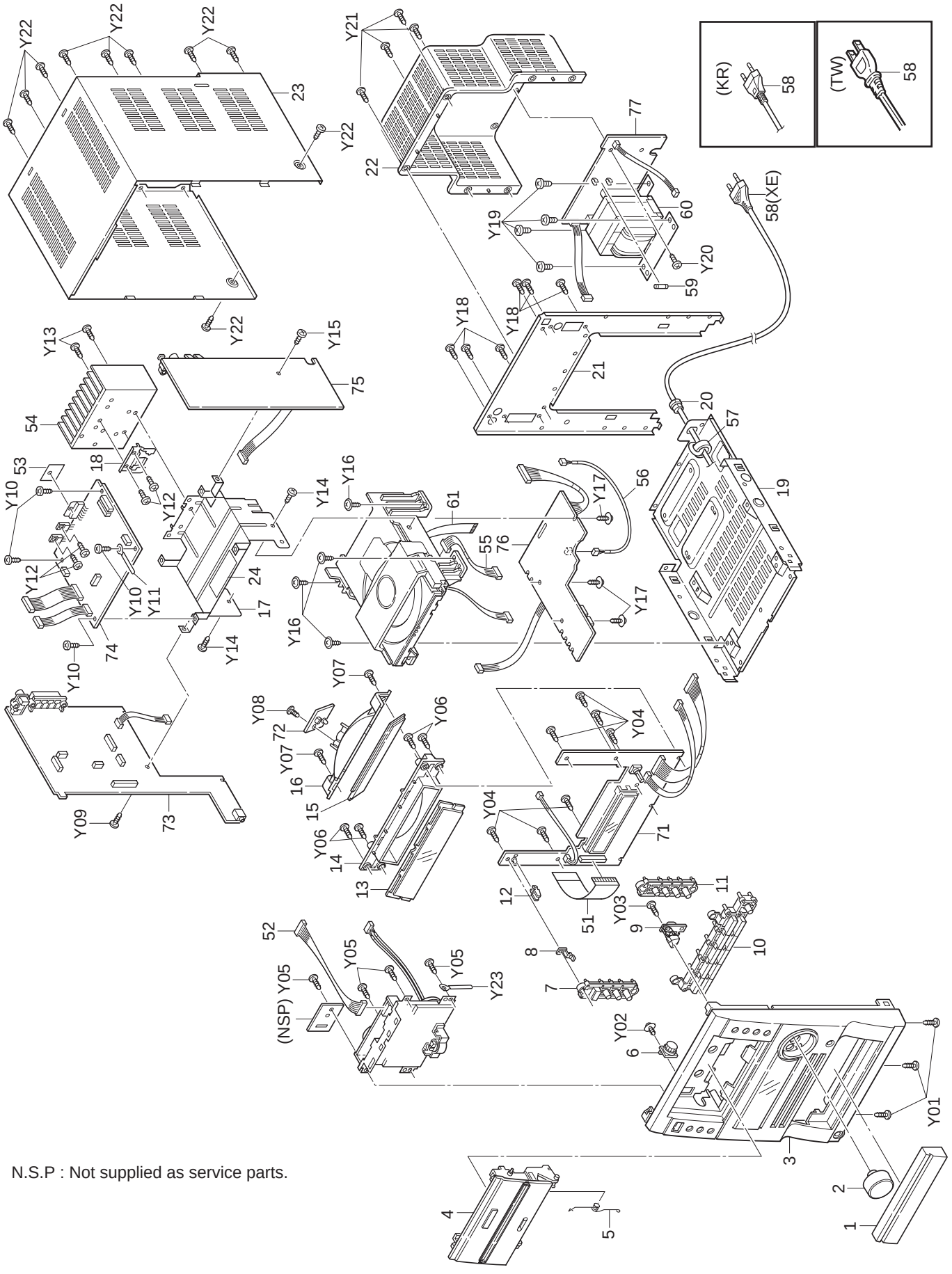
RF Level : dBuV EMF

Output Level : about 500mW at TP13, TP14, TP15

2. AW

Step	Adjusting Circuit	Connection Input	Connection Output	SG Frequency	Adjustment	Remark
1	IF Adjustment	LOOP ANT	Connect Sweep generator to test point TP13(L)or TP14(R) and TP15(E)	at 999kHz	T2002	AF Maximum
2	Cover	---	Connect Digital DC voltmeter to	522kHZ	L2153	1.00±0.05V check only
	Voltage	---	TP11(H)and TP12(E).	1611kHZ		8.1±0.50V check only
3	Tracking	LOOP ANT	Connect to VTVM point TP13(L)or TP14(R) and TP15(E)	603KHZ	L2151	AF Maximum
				1404kHZ	CT252	

EXPLODED VIEW (CABINET & CHASSIS)



PARTS LIST

PRODUCT SAFETY NOTICE

EACH PRECAUTION IN THIS MANUAL SHOULD BE FOLLOWED DURING SERVICING. COMPONENTS IDENTIFIED WITH THE IEC SYMBOL ⚠ IN THE PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATED COMPONENTS IN WHICH SAFETY CAN BE OF SPECIAL SIGNIFICANCE. WHEN REPLACING A COMPONENT IDENTIFIED BY ⚠, USE ONLY THE REPLACEMENT PARTS DESIGNATED, OR PARTS WITH THE SAME RATINGS OF RESISTANCE, WATTAGE OR VOLTAGE THAT ARE DESIGNATED IN THE PARTS LIST IN THIS MANUAL. LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS MUST BE MADE TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE PRODUCT TO THE CUSTOMER.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.
Regular type resistors are less than 1/4 W Carbon type and Chip type resistors.
Regular type capacitors are less than 50 V and less than 1000 µF type of Ceramic type, Electrolytic type and Chip type.

N.S.P : Not supplied as service parts.

PACKING & ACCESSORIES

REF.NO.	PART NO.	DESCRIPTION
	614 318 6380	CARTON CASE (XE)
	614 319 6297	CARTON CASE (KR)
	614 320 5944	CARTON CASE (TW)
	614 318 6397	CUSHION,RIGHT
	614 318 6403	CUSHION,LEFT
	614 318 6410	INSTRUCTION MANUAL (XE)
	614 318 6427	INSTRUCTION MANUAL,GREECE (XE)
	614 319 5092	INSTRUCTION MANUAL (KR)
	614 320 5951	INSTRUCTION MANUAL (TW)
	645 012 1326	POLY SHEET-1200X0550*NC,SET (XE)
	645 012 1302	POLY SHEET-1200X0550*NC, SET (KR, TW)
	645 044 1110	REMOCON,***
	645 046 8322	ASSY,ANTENA,LOOP
or	645 005 1227	ASSY,ANTENA,LOOP
	614 308 5515	ANTENNA (XE)
or	614 229 4635	ANTENNA (XE)
	614 245 0055	ANTENNA (KR, TW)
	614 318 9404	LID,BATTERY,SERVICE
	614 318 5789	ASSY,BOX,SPEAKER (L) (XE)
	614 319 4934	ASSY,BOX,SPEAKER (L) (KR, TW)
	614 318 5796	ASSY,BOX,SPEAKER (R) (XE)
	614 319 4941	ASSY,BOX,SPEAKER (R) (KR, TW)
	614 318 5819	ASSY,GRILLE (XE)
	614 319 4965	ASSY,GRILLE (KR, TW)

CABINET & CHASSIS

REF.NO.	PART NO.	DESCRIPTION
1	614 318 6007	COVER,CD,DOOR
2	614 318 7066	KNOB,VOLUME
3	614 318 5895	ASSY,PANEL,FRONT (XE)
3	614 319 5009	ASSY,PANEL,FRONT (KR, TW)
4	614 318 5888	ASSY,LID,CASSETTE
5	614 318 6267	SPRING,LID,CASSETTE
6	614 309 8270	ASSY,GEAR,LID CASSETTE
7	614 318 5932	BUTTON,POWER,4KEYS
8	614 318 7530	REFLECTOR,STANDBY,LED
9	614 303 1277	LATCH,CAM,DECK,DOOR.LOCKING
10	614 318 5956	BUTTON,PLAY,11KEYS
11	614 318 5949	BUTTON,TUNER,4KEYS
12	614 318 7486	HOLDER,STANDBY LED
13	614 318 6052	DEC,WINDOW,LED
14	614 318 6090	HOLDER,LED
15	614 318 6236	REFLECTOR
16	614 318 6106	HOLDER,REFLECTOR
17	614 318 6083	HOLDER,HEAT SINK
18	614 312 0223	MOUNTING,POWER IC
19	614 318 7424	ASSY,CABINET,BOTTOM
20	614 284 1884	FIXER,AC CORD
or	614 129 1901	FIXER,AC CORD
21	614 318 7103	PANEL,REAR (XE)
21	614 319 5030	PANEL,REAR (KR)
21	614 320 5869	PANEL,REAR (TW)
22	614 318 6885	COVER,REAR (XE, TW)
22	614 319 4477	COVER,REAR (KR)
23	614 322 8042	ASSY,CABINET,BENDING
24	614 317 3090	LABEL,SAFETY,LASER,PICK-UP

FIXING PARTS

REF.NO.	PART NO.	DESCRIPTION
Y01	411 021 3503	SCR S-TPG BIN 3X10, P-FRONT+C-BOTTOM
Y02	411 021 3503	SCR S-TPG BIN 3X10, F-PANEL+ASSY,GEAR
Y03	411 021 3503	SCR S-TPG BIN 3X10, F-PANEL+LATCH,CAM
Y04	411 021 3503	SCR S-TPG BIN 3X10,FRONT+PCB
Y05	411 021 3503	SCR S-TPG BIN 3X10, F-PANEL+MECHA
Y06	411 021 3503	SCR S-TPG BIN 3X10, HOLDER,LED+F-PANEL
Y07	411 021 3503	SCR S-TPG BIN 3X10, H-REFLECTOR+H-LED
Y08	411 021 3503	SCR S-TPG BIN 3X10, H-REFLECTOR+PWB
Y09	411 021 3503	SCR S-TPG BIN 3X10, PRE AMP PWB+HOLDER
Y10	411 021 3503	SCR S-TPG BIN 3X10, AMP,PWB+HOLDER
Y11	614 129 9136	LUG
Y12	411 021 3503	SCR S-TPG BIN 3X10,HEAT SINK
Y13	411 021 3503	SCR S-TPG BIN 3X10, HOLDER+HEAT,SINK
Y14	411 021 3503	SCR S-TPG BIN 3X10, HOLDER+CD,MECHA
Y15	411 021 3503	SCR S-TPG BIN 3X10, TUNER,PWB+HOLDER
Y16	411 020 8905	SCR S-TPG BRZ+FLG 3X10, CD MECHA + C-BOTTOM
Y17	411 020 9902	SCR S-TPG BRZ+FLG 3X8, CD MECHA + CD PWB
Y18	411 021 3701	SCR S-TPG BIN 3X10, P-REAR+ELECT PARTS
Y19	411 001 3905	SCR S-TPG BIN 4X6, P-TRANS + C-BOTTOM
Y20	411 021 3503	SCR S-TPG BIN 3X10, C-REAR + POWER PWB
Y21	411 021 3701	SCR S-TPG BIN 3X10, COVER,REAR+P-REAR, C-REAR+C-BOTTOM
Y22	411 021 3701	SCR S-TPG BIN 3X10, P-REAR+CABINET,TOP, C-TOP+C-BOTTOM
Y23	614 129 9082	LUG,TAPE MECHA (XE)

PARTS LIST

ELECTRICAL PARTS

REF.NO.	PART NO.	DESCRIPTION
51	645 050 3788	FLEXIBLE FLAT CABLE, FRONT TO AMP
52	614 320 3292	ASSY,WIRE,AMP TO DECK MOTOR
53	614 310 8887	SPACER,RUBBER,POWER IC
54	614 318 9374	HEAT SINK
55	614 320 3360	ASSY,WIRE,CD BASE MECHA
56	614 320 3407	ASSY,WIRE,TUNER TO CD(OPT.)
57	645 031 7637	CORE,FERRITE,EMC
or	645 051 0649	CORE,FERRITE,EMC
58	⚠645 016 9939	CORD,POWER-1.74MK (XE)
58	⚠645 047 8055	CORD,POWER-1.8MK (KR)
58	⚠645 044 6474	CORD,POWER-1.7MK (TW)
59	⚠423 017 0007	FUSE 250V 1A (XE,KR)
59	⚠423 021 6804	FUSE 125V 2A (TW)
60	⚠645 048 6012	TRANS,POWER (XE)
60	⚠645 050 2071	TRANS,POWER (KR)
60	⚠645 050 8905	TRANS,POWER (TW)
61	614 320 3315	ASSY,WIRE,AMP TO R/P HEAD
62	645 050 3795	FLEXIBLE FLAT CABLE,CD,PICK UP
63	614 320 3346	ASSY,WIRE,PT TO AMP FL (XE, KR)

FRONT P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
71	614 318 5130	ASSY,PWB,FRONT(Only initial)(XE)
71	614 319 1605	ASSY,PWB,FRONT(Only initial)(KR)
71	614 320 8259	ASSY,PWB,FRONT(Only initial)(TW)
BR601	614 318 6991	HOLDER,FL,HOLDER-FL
CN601	645 012 5324	SOCKET,FPC 28P,FRONT-AMP
CN604	614 035 4911	SOCKET,DIP 2P,FRONT-LED
CN612	614 320 3414	ASSY,WIRE,FRONT-POWER AMP 12P
CN613	614 320 3438	ASSY,WIRE,FRONT-TU
CN614	614 320 3285	ASSY,WIRE,FRONT-CD TRAY LED 2P
D6010	407 012 4406	DIODE 1SS133
D6110	407 012 4406	DIODE 1SS133
D6312	408 032 5404	LED SLP-9118C-51H-S-T1, STAND-BY-LED
DE601	408 039 8507	PHOTO DIODE PIC-28043TE3
FL601	645 048 3165	FLOURESCENT TUBE,FL
IC601	410 423 5306	IC LC866540A-5Y58 (XE, KR)
IC601	410 427 9102	IC LC866540A-5Y89 (TW)
L6010	645 001 5441	INDUCTOR,2.2U K
Q6108	405 143 8706	TR KTC3199-GR
or	405 011 8500	TR 2SC1740S-R
or	405 011 8609	TR 2SC1740S-S
or	405 017 9600	TR 2SC3330-T
or	405 017 9709	TR 2SC3330-U
Q6201	405 000 6104	TR DTC144ES
or	405 146 1209	TR KRC104M
Q6202	405 000 6104	TR DTC144ES
or	405 146 1209	TR KRC104M
Q6301	405 143 0007	TR KRC107M
or	405 000 3806	TR DTC114YS
SE601	407 217 1101	PHOTO DIODE, SPS-442-1G (KR)
S6001	645 044 6535	SWITCH,ROTARY(ENCODER)
S6110	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
S6111	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6112	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6113	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6114	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6115	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6116	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6117	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
or	614 220 5471	SWITCH,TACT
S6118	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6119	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6210	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6211	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6212	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6213	645 006 5958	SWITCH,PUSH 1P-1T
or	614 240 1002	SWITCH,TACT
or	614 220 5471	SWITCH,TACT
S6214	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6215	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6216	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6217	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
S6218	614 220 5471	SWITCH,TACT
or	614 240 1002	SWITCH,TACT
or	645 006 5958	SWITCH,PUSH 1P-1T
X6101	645 032 1627	OSC,CRYSTAL 32.768KHZ
X6102	645 018 6103	OSC,CERAMIC 6.000MHZ

CD TRAY LED P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
72	614 318 5123	ASSY,PWB,CD TRAY LED(Only initial)
CN645	614 310 2434	PLUG,2P
or	645 005 7366	PLUG,2P
D6401	407 225 4507	LED LT03B3-41-URE1, CD TRAY LIGHT

PARTS LIST

PRE AMPLIFIER P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
73	614 318 5109	ASSY,PWB,PRE AMP(Only Initial) (XE)
73	614 319 1490	ASSY,PWB,PRE AMP(Only Initial) (KR, TW)
C4720	403 059 3204	POLYESTER 2200P J 50V
C4721	403 061 7702	POLYESTER 4700P J 50V
C4722	403 061 3605	POLYESTER 0.039U J 50V
C4730	403 060 2807	POLYESTER 0.027U K 50V
C4741	403 057 3503	POLYESTER 0.1U K 50V
C4861	403 304 4802	DL-ELECT 0.047F Z 5.5V
or	403 262 8607	DL-ELECT 0.047F Z 5.5V
C4982	403 057 1202	POLYESTER 0.01U M 50V
C4992	403 057 1202	POLYESTER 0.01U M 50V
CN413	614 320 3308	ASSY,WIRE,POWERAMP-PREAMP 4P
CN450	645 006 0861	PLUG,7P
or	614 310 2489	PLUG,7P
CN451	645 005 8165	PLUG,11P
or	614 310 2526	PLUG,11P
CN452	614 020 1239	SOCKET,4P
CN460	645 012 5324	SOCKET,FPC 28P,SOCKET FPC28P
CN470	645 005 8158	PLUG,10P
or	614 310 2519	PLUG,10P
CN471	645 005 8127	PLUG,6P
or	614 310 2472	PLUG,6P
CN480	645 005 9292	PLUG,5P
or	614 310 2465	PLUG,5P
CN481	645 011 6384	JACK,PHONE D3.6,HEAD PHONE
CN485	614 276 6835	SOCKET,JACK
CN490	645 008 5314	TERMINAL,SPEAKER-OUT
D4840	407 099 4603	ZENER DIODE MTZJ3.9B
D4850	407 012 4406	DIODE 1SS133
D4851	407 012 4406	DIODE 1SS133
D4950	407 012 4406	DIODE 1SS133
D4960	407 099 5204	ZENER DIODE MTZJ5.1B
IC450	409 474 6103	IC LC75342M
IC460	409 451 7406	IC AN7348K
IC470	409 189 3404	IC BA7755A
L4700	645 037 2858	CORE,PIPE
L4720	645 006 1523	INDUCTOR,470U J
L4721	645 037 2858	CORE,PIPE
L4740	645 006 1523	INDUCTOR,470U J
L4741	645 006 1523	INDUCTOR,470U J
L4810	645 006 9864	INDUCTOR,80U (XE)
L4820	645 006 9864	INDUCTOR,80U (XE)
L4910	645 006 9864	INDUCTOR,80U (XE)
L4920	645 006 9864	INDUCTOR,80U (XE)
PR496	⚠ 645 014 2475	PROTECTOR,0.75A 125V
Q4610	405 143 0007	TR KRC107M
or	405 000 3806	TR DTC114YS
Q4620	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
Q4700	405 155 0002	TR MPSA56
Q4701	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
Q4720	405 141 3307	TR KTC3198-GR
or	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3208	TR KTC3198-Y
Q4730	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
Q4840	405 004 5004	TR 2SA608-G-NP
or	405 004 4502	TR 2SA608-F-NP
or	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
Q4850	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
Q4930	405 155 0002	TR MPSA56
Q4931	405 143 0007	TR KRC107M
or	405 000 3806	TR DTC114YS
Q4940	405 155 0002	TR MPSA56
Q4941	405 000 3806	TR DTC114YS
or	405 143 0007	TR KRC107M
Q4970	405 004 5004	TR 2SA608-G-NP
or	405 004 4502	TR 2SA608-F-NP
or	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
S4900	614 215 9828	SWITCH,TACT

POWER AMPLIFIER P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
74	614 318 5093	ASSY,PWB,POWER AMP(Only Initial) (XE)
74	614 319 1483	ASSY,PWB,POWER AMP(Only Initial) (KR, TW)
C4100	⚠ 403 329 6201	ELECT 2200U M 35V
or	⚠ 403 325 0203	ELECT 2200U M 35V
C4120	⚠ 403 329 6102	ELECT 1000U M 35V (XE)
C4200	⚠ 403 329 6102	ELECT 1000U M 35V (XE)
C4432	403 059 8209	POLYESTER 0.22U K 50V
C4433	403 059 8209	POLYESTER 0.22U K 50V
C4442	403 059 8209	POLYESTER 0.22U K 50V
C4443	403 059 8209	POLYESTER 0.22U K 50V
CN410	645 004 2911	PLUG,5P
or	614 310 2762	PLUG,5P
CN414	614 320 3384	ASSY,WIRE,PREAMP-POWERAMP 7P
CN415	614 320 3391	ASSY,WIRE,PREAMP-POWERAMP 11P
CN420	614 310 2441	PLUG,3P (XE)
or	645 005 7373	PLUG,3P (XE)
CN430	614 310 2496	PLUG,8P
or	645 005 8134	PLUG,8P
CN440	645 012 2729	SOCKET,DIP 7P
CN441	614 035 5000	SOCKET,DIP 11P
CN442	645 006 1813	PLUG,4P
CN443	645 006 0878	PLUG,12P (XE)
CN443	645 310 2533	PLUG,12P (KR)
CN444	645 006 0878	PLUG,12P (XE)
CN444	645 310 2533	PLUG,12P (KR)
D4110	⚠ 407 196 5800	DIODE 1N5402BD82
D4111	⚠ 407 196 5800	DIODE 1N5402BD82
D4112	⚠ 407 196 5800	DIODE 1N5402BD82
D4113	⚠ 407 196 5800	DIODE 1N5402BD82
D4210	⚠ 407 099 6805	ZENER DIODE MTZJ13B
D4220	⚠ 407 099 6102	ZENER DIODE MTZJ10B
D4300	407 148 6701	DIODE 1A3-I
D4301	407 148 6701	DIODE 1A3-I
D4310	⚠ 407 099 5402	ZENER DIODE MTZJ6.2B
D4320	407 099 4603	ZENER DIODE MTZJ3.9B
D4321	407 012 4406	DIODE 1SS133
D4340	⚠ 407 099 9509	ZENER DIODE MTZJ30B
D4341	407 012 4406	DIODE 1SS133
D4342	407 012 4406	DIODE 1SS133
D4343	407 012 4406	DIODE 1SS133
D4344	407 012 4406	DIODE 1SS133
HS431	614 215 9347	HEAT SINK,Q4310
IC440	⚠ 409 441 6402	IC TDA7265
PR410	⚠ 645 025 5137	PROTECTOR,7A 125V
PR411	⚠ 645 025 5137	PROTECTOR,7A 125V
PR431	⚠ 645 027 4169	PROTECTOR,0.125A 125V
PR434	⚠ 645 014 2451	PROTECTOR,0.25A 125V
Q4210	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
Q4211	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
Q4212	⚠ 405 138 6403	TR KTD2058Y
Q4220	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
Q4221	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
Q4222	⚠ 405 138 6403	TR KTD2058Y
Q4310	⚠ 405 138 6403	TR KTD2058Y
Q4320	405 004 5004	TR 2SA608-G-NP
or	405 004 4502	TR 2SA608-F-NP
or	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
Q4321	405 004 5004	TR 2SA608-G-NP
or	405 004 4502	TR 2SA608-F-NP
or	405 141 3505	TR KTA1266-Y
or	405 141 3406	TR KTA1266-GR
Q4330	405 141 3307	TR KTC3198-GR
or	405 141 3208	TR KTC3198-Y
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
Q4340	⚠ 405 141 3604	TR KTA1273-Y
or	⚠ 405 009 5207	TR 2SB927-S
or	⚠ 405 009 5306	TR 2SB927-T
Q4400	405 141 3307	TR KTC3198-GR
or	405 141 3208	TR KTC3198-Y
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
Q4410	405 141 3307	TR KTC3198-GR
or	405 141 3208	TR KTC3198-Y
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
Q4420	405 141 3307	TR KTC3198-GR
or	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3208	TR KTC3198-Y
R4120	⚠ 402 083 3501	RESISTOR 1.5K J- 1W
R4211	⚠ 402 081 2506	FUSIBLE RES 1 J- 1/2W
R4221	⚠ 402 081 2506	FUSIBLE RES 1 J- 1/2W
R4300	⚠ 402 082 1102	FUSIBLE RES 22 JA 1/2W
R4436	⚠ 402 078 5107	FUSIBLE RES 4.7 JA 1/4W
or	⚠ 402 081 2605	FUSIBLE RES 4.7 J- 1/4W
R4446	⚠ 402 081 2605	FUSIBLE RES 4.7 J- 1/4W
or	⚠ 402 078 5107	FUSIBLE RES 4.7 JA 1/4W
SA431	411 021 3503	SCR S-TPG BIN 3X10

TUNER P.W.BOARD ASSY (FOR XE)

REF.NO.	PART NO.	DESCRIPTION
75	614 318 5116	ASSY,PWB,TU (Only Initial)
C2457	403 259 0508	NP-ELECT 1U M 50V
CN201	645 032 6394	TERMINAL
or	614 255 5750	TERMINAL
CN202	645 012 2736	SOCKET,DIP 8P
CN203	645 005 8127	PLUG,6P
or	614 310 2472	PLUG,6P
CN204	407 215 1608	PHOTO COUPLE TOTX178A
or	407 218 1100	PHOTO COUPLE GP1FA550TZ
CN205	645 005 7373	PLUG,3P
or	614 310 2441	PLUG,3P
CN212	614 320 3339	ASSY,WIRE,TU-POWERAMP 8P
CT251	645 032 5236	TRIMMER,18PF
CT252	645 032 5663	TRIMMER,7PF

REF.NO.	PART NO.	DESCRIPTION
D2103	407 012 4406	DIODE 1SS133
D2104	407 012 4406	DIODE 1SS133
D2151	407 012 4406	DIODE 1SS133
D2153	407 105 1602	VARACTOR DI SVC342M-V
or	407 105 1305	VARACTOR DI SVC342L-V
D2301	407 063 9108	ZENER DIODE MTZJ6.8B
D2450	407 012 4406	DIODE 1SS133
D2451	407 012 4406	DIODE 1SS133
D2452	407 153 7502	ZENER DIODE GZS3.0B
D2453	407 012 4406	DIODE 1SS133
D2454	407 012 4406	DIODE 1SS133
D2455	407 012 4406	DIODE 1SS133
D2456	407 012 4406	DIODE 1SS133
D2466	407 012 4406	DIODE 1SS133
D2467	407 012 4406	DIODE 1SS133
IC231	409 474 3201	IC LA1844ML
IC241	409 439 4502	IC LC72121M-D
IC251	409 447 3900	IC LC72722
L2100	⚠ 645 037 2858	CORE,PIPE
L2101	⚠ 645 037 2858	CORE,PIPE
L2151	645 040 2685	TRANS,ANT,796KHZ
L2152	645 046 7998	TRANS,ANT,796KHZ
L2153	645 040 2708	TRANS,OSC,796KHZ
L2154	645 040 2722	TRANS,OSC,796KHZ
L2301	645 004 0580	INDUCTOR,1M J
L2451	645 001 4581	INDUCTOR,100U K
L2501	645 001 4581	INDUCTOR,100U K
L2502	645 001 4581	INDUCTOR,100U K
Q2140	405 020 7402	TR 2SC945A-P
or	405 020 7204	TR 2SC945A-K
or	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 017 9709	TR 2SC3330-U
or	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 143 8706	TR KTC3199-GR
Q2152	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
or	405 151 4202	TR KTC3193-O
Q2153	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
or	405 151 4202	TR KTC3193-O
Q2154	405 151 4202	TR KTC3193-O
or	405 151 4103	TR KTC3193-Y
or	405 016 0806	TR 2SC2839-E
Q2155	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
or	405 151 4202	TR KTC3193-O
Q2156	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
or	405 151 4202	TR KTC3193-O
Q2157	405 035 8609	TR 2SK544-F
or	405 035 8708	TR 2SK544-E
Q2201	405 016 0806	TR 2SC2839-E
or	405 151 4103	TR KTC3193-Y
or	405 151 4202	TR KTC3193-O
Q2310	405 017 9600	TR 2SC3330-T
or	405 011 8609	TR 2SC1740S-S
or	405 011 8500	TR 2SC1740S-R
or	405 143 8706	TR KTC3199-GR
or	405 017 9709	TR 2SC3330-U
or	405 019 3705	TR 2SC536-G-AUD-SPA
or	405 020 7402	TR 2SC945A-P
or	405 020 7204	TR 2SC945A-K
Q2451	405 036 3702	TR 2SA1564
or	405 151 5209	TR KRA107M
or	405 000 0904	TR DTA114YS
or	405 078 2404	TR BN1A4P

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
Q2452	405 036 3702	TR 2SA1564
or	405 151 5209	TR KRA107M
or	405 000 0904	TR DTA114YS
or	405 078 2404	TR BN1A4P
Q2453	405 036 3702	TR 2SA1564
or	405 151 5209	TR KRA107M
or	405 000 0904	TR DTA114YS
or	405 078 2404	TR BN1A4P
Q2502	405 036 3702	TR 2SA1564
or	405 151 5209	TR KRA107M
or	405 000 0904	TR DTA114YS
or	405 078 2404	TR BN1A4P
Q2900	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
or	405 019 2708	TR 2SC536-F-NP
or	405 019 3804	TR 2SC536-G-NP
T2002	645 046 2023	FILTER,450KHZ
U2101	645 043 6697	TUNER,FM
X2451	645 023 4965	OSC,CRYSTAL 7.2MHZ
X2501	645 035 8326	OSC,CRYSTAL 4.332MHZ
XF221	645 010 7665	CERAMIC FILTER 10.70MHZ
or	645 010 0079	CERAMIC FILTER 10.70MHZ
or	614 240 2917	FILTER,CERAM
XF222	645 010 7665	CERAMIC FILTER 10.70MHZ
or	645 010 0079	CERAMIC FILTER 10.70MHZ
or	614 240 2917	FILTER,CERAM
XF231	645 041 9324	CERAMIC FILTER 450KHZ
XF233	645 040 9981	TRANS,IF 10.7MHZ
or	645 039 9923	TRANS,IF 10.7MHZ

TUNER P.W.BOARD ASSY (FOR KR, TW)

REF.NO.	PART NO.	DESCRIPTION
75	614 319 1506	ASSY,PWB,TU (Only Initial)
CN201	645 031 7910	TERMINAL
or	645 005 0695	TERMINAL,ANT
CN202	645 012 2736	SOCKET,DIP 8P
CN203	645 005 8127	PLUG,6P
or	614 310 2472	PLUG,6P
CN204	407 215 1608	PHOTO COUPLE TOTX178A
or	407 218 1100	PHOTO COUPLE GP1FA550TZ
CN205	645 005 7373	PLUG,3P
or	614 310 2441	PLUG,3P
CN212	614 320 3339	ASSY,WIRE,TU_POWER AMP
CT252	645 032 5663	TRIMMER,7PF
D2101	407 157 8109	VARACTOR DI SVC211-B
D2102	407 157 8109	VARACTOR DI SVC211-B
D2103	407 012 4406	DIODE 1SS133
D2104	407 012 4406	DIODE 1SS133
D2151	407 012 4406	DIODE 1SS133
D2153	407 105 1305	VARACTOR DI SVC342L-V
or	407 105 1602	VARACTOR DI SVC342M-V
D2301	407 063 9108	ZENER DIODE MTZJ6.8B
D2451	407 012 4406	DIODE 1SS133
D2452	407 153 7502	ZENER DIODE GZS3.0B
D2453	407 012 4406	DIODE 1SS133
IC211	409 292 5807	IC TA8176SN
IC231	409 474 3201	IC LA1844ML
IC241	409 439 4502	IC LC72121M-D
L2101	645 018 0163	COIL,AIR
L2102	645 011 2546	COIL,AIR 0.11U
L2103	645 002 1534	INDUCTOR,8.2U K
L2151	645 037 2377	TRANS,ANT,796KHZ
L2153	645 040 2739	TRANS,OSC,796KHZ
L2451	645 001 4581	INDUCTOR,100U K
Q2451	405 036 3702	TR 2SA1564
or	405 151 5209	TR KRA107M
or	405 000 0904	TR DTA114YS
or	405 078 2404	TR BN1A4P
Q2900	405 019 3804	TR 2SC536-G-NP
or	405 019 2708	TR 2SC536-F-NP
or	405 141 3208	TR KTC3198-Y
or	405 141 3307	TR KTC3198-GR
SH201	614 256 3052	SHIELD
T2002	645 046 2023	FILTER,450KHZ
X2451	645 023 4965	OSC,CRYSTAL 7.2MHZ
XF201	645 026 2975	FILTER,BP 108MHZ
or	614 252 1045	FILTER,LC
XF221	645 010 7665	CERAMIC FILTER 10.70MHZ
or	614 231 0199	FILTER
or	614 030 5074	I.F FILTER
XF222	645 010 7665	CERAMIC FILTER 10.70MHZ
or	614 231 0199	FILTER
or	614 030 5074	I.F FILTER
XF231	645 041 9324	CERAMIC FILTER 450KHZ
XF233	645 039 9923	TRANS,IF 10.7MHZ

CD P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
76	614 318 8285	ASSY,PWB,CD (Only Initial)
CN102	614 320 3421	ASSY,WIRE,POWER AMP_CD
CN104	614 320 3322	ASSY,WIRE,CD_PREAMP
CN111	645 026 2463	SOCKET,FFC 15P
or	645 040 0513	SOCKET,FPC 15P
CN113	645 006 0939	PLUG,6P
or	614 310 2625	PLUG,6P
CN114	645 006 0922	PLUG,5P
or	614 310 2618	PLUG,5P
CN123	614 035 4942	SOCKET,DIP 5P
CN131	645 007 0068	PLUG,3P
or	645 005 7373	PLUG,3P
or	614 310 2441	PLUG,3P
D1371	407 099 5105	ZENER DIODE MTZJ4.7B
D1480	407 012 5809	DIODE 1SS176
or	407 012 4406	DIODE 1SS133
D1601	⚠ 407 148 6701	DIODE 1A3-I
D1981	407 099 5204	ZENER DIODE MTZJ5.1B
IC101	409 396 8100	IC LA9241ML
IC102	409 435 2106	IC LC78622NE
IC103	⚠ 409 372 9602	IC LA6541
IC132	⚠ 409 408 1303	IC LB1641L
L1451	645 001 4550	INDUCTOR,10U K
PR101	⚠ 645 014 2499	PROTECTOR,0.4A 125V
PR132	⚠ 645 014 2468	PROTECTOR,0.63A 125V
Q1301	405 008 6809	TR 2SB808-F-SPA
or	405 008 7202	TR 2SB810-E
or	405 008 7301	TR 2SB810-F
Q1401	⚠ 405 009 5207	TR 2SB927-S
or	⚠ 405 001 9302	TR 2SA1020-Y
or	⚠ 405 141 3604	TR KTA1273-Y
R1371	⚠ 402 083 3600	RESISTOR 15 J- 2W
X1451	645 020 9024	OSC,CRYSTAL 16.9344MHZ

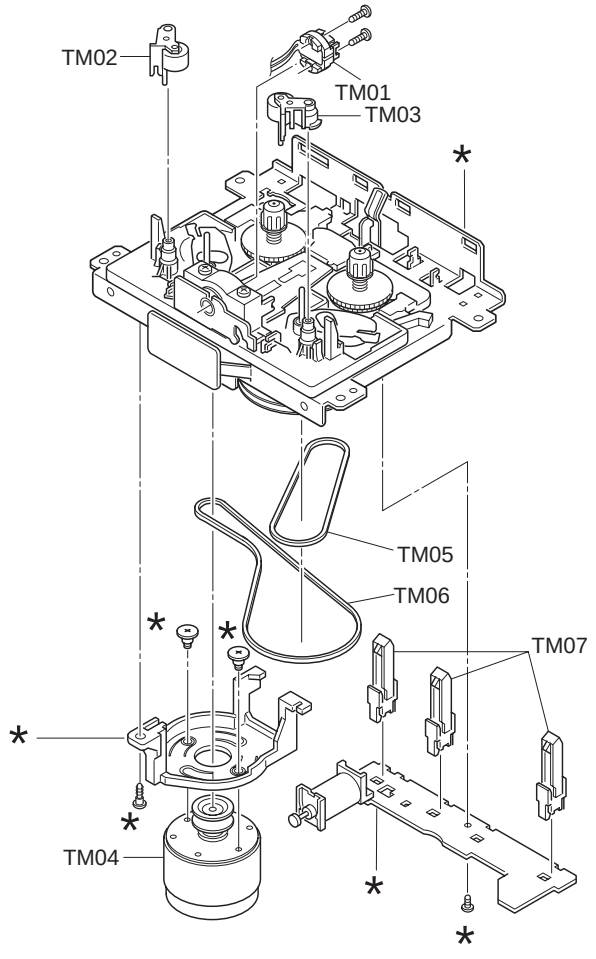
POWER SUPPLY P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
77	614 318 5147	ASSY,PWB,DG (XE)
77	614 319 1612	ASSY,PWB,DG (KR)
77	614 320 8266	ASSY,PWB,DG (TW)
C4000	⚠ 403 200 6900	ELECT 1000U M 16V (XE, KR)
or	⚠ 403 313 4602	ELECT 1000U M 16V (XE, KR)
C4015	⚠ 403 349 3303	CERAMIC 0.01U M 250V (XE, KR)
CN400	614 020 1246	SOCKET,5P
CN401	614 035 4928	SOCKET,DIP 3P (XE, KR)
CN402	645 006 4760	HOLDER,FUSE,FUSE HOLDER
or	645 031 7903	HOLDER,FUSE,FUSE HOLDER

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
CN403	645 006 4760	HOLDER,FUSE,FUSE HOLDER
or	645 031 7903	HOLDER,FUSE,FUSE HOLDER
CN411	614 320 3346	ASSY,WIRE,DG-POWERAMP 3P (XE)
CN412	614 320 3353	ASSY,WIRE,DG-POWERAMP 5P
D4010	⚠ 407 148 6701	DIODE 1A3-I (XE)
D4011	⚠ 407 148 6701	DIODE 1A3-I (XE)
D4012	⚠ 407 148 6701	DIODE 1A3-I (XE)
D4013	⚠ 407 148 6701	DIODE 1A3-I (XE)
D4020	⚠ 407 099 5402	ZENER DIODE MTZJ6.2B (XE)
D4030	407 012 4406	DIODE 1SS133 (XE)
L4000	⚠ 645 041 3087	INDUCTOR,180U (XE, KR)
or	⚠ 645 038 6053	INDUCTOR,181U (XE, KR)
PT400	⚠ 645 048 6036	TRANS,POWER, SUB TRANSFORMER (XE)
Q4020	⚠ 405 141 1402	TR KTD863-GR (XE)
or	⚠ 405 023 5009	TR 2SD400-E-MP (XE)
or	⚠ 405 023 5306	TR 2SD400-F-MP (XE)
Q4030	405 141 3307	TR KTC3198-GR (XE)
or	405 141 3208	TR KTC3198-Y (XE)
or	405 019 2708	TR 2SC536-F-NP (XE)
or	405 019 3804	TR 2SC536-G-NP (XE)
RY400	⚠ 645 030 5597	RELAY (XE)
WR400	614 017 8203	TERMINAL BOARD,TERMINAL-BOARD
WR401	614 017 8203	TERMINAL BOARD,TERMINAL-BOARD

PARTS LIST(TAPE MECHANISM)

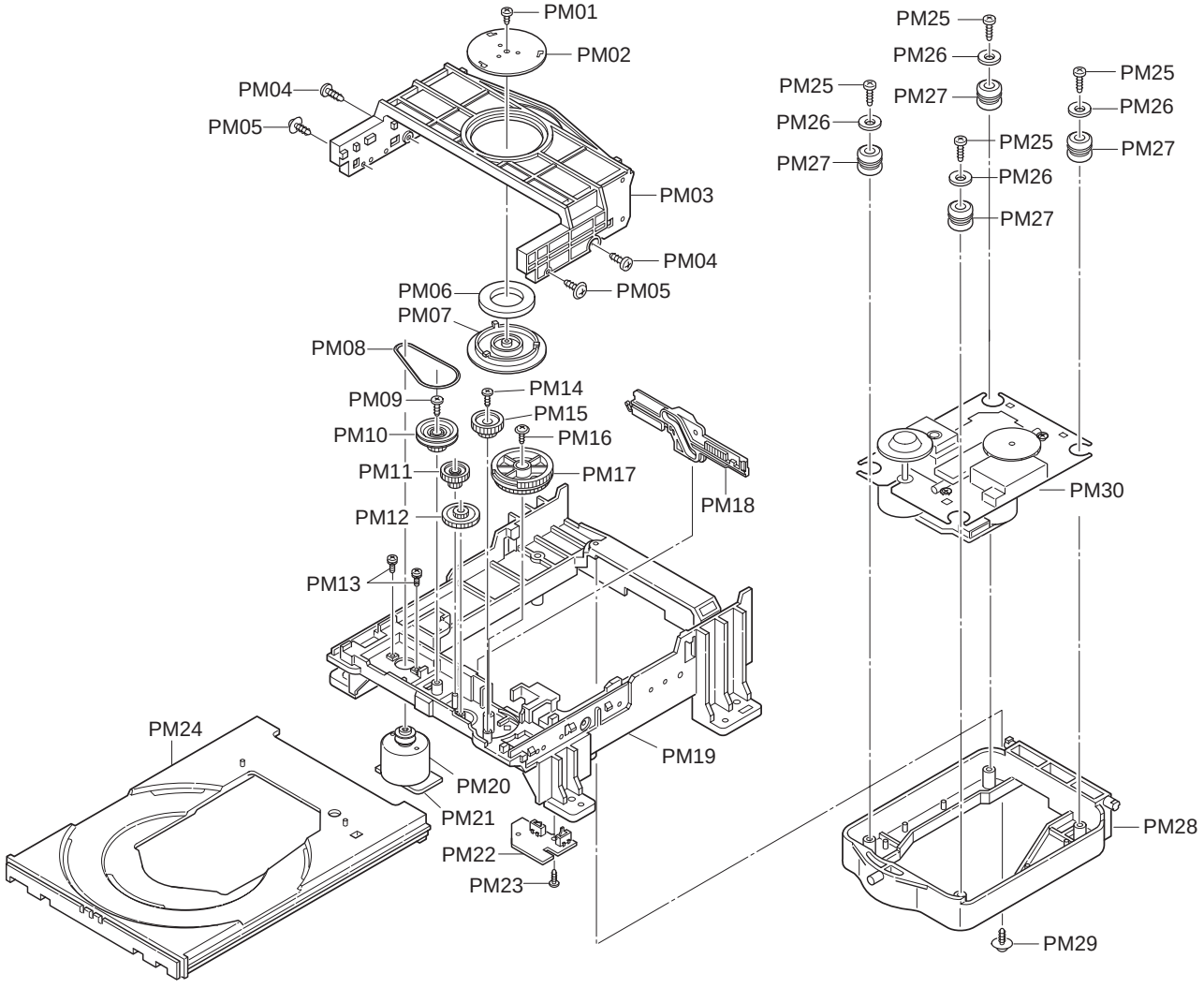


TAPE MECHANISM

REF.NO.	PART NO.	DESCRIPTION
	614 315 4839	ASSY,MECHA,TM-DA370TN-SH
TM01	645 045 1799	R/P,E HEAD KC-9142EA-0321
TM02	645 010 9454	PINCH ROLLER(R) ASSY
TM03	645 010 9447	PINCH ROLLER(F) ASSY
TM04	645 045 1751	ASSY,MOTOR
TM05	645 045 1959	RF BELT
TM06	645 045 1997	MAIN BELT
TM07	645 045 2048	DETECT SWITCH MXS01190

* N.S.P : Not supplied as service parts.

EXPLODED VIEW (CD MECHANISM)

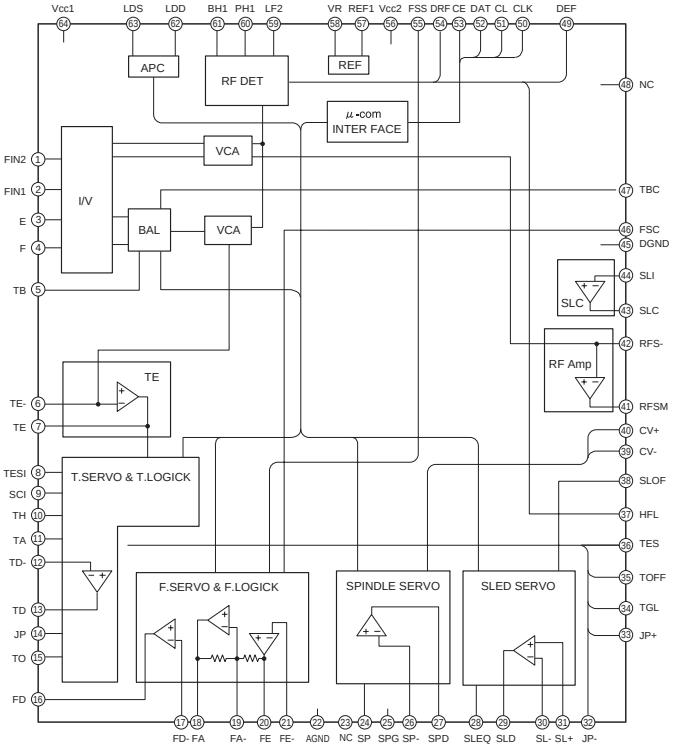


PARTS LIST(CD MECHANISM)

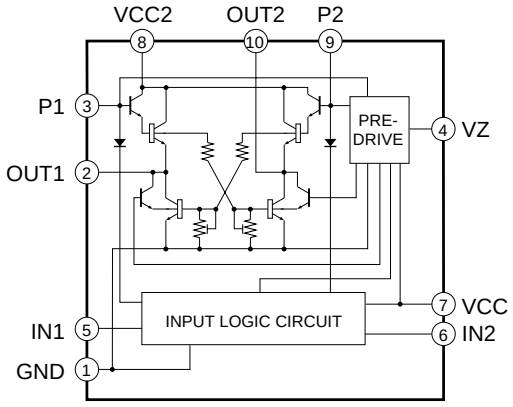
REF.NO.	PART NO.	DESCRIPTION
	614 319 2640	ASSY,MECHA,CD-BM500-SH, CD MECHA
PM01	411 162 1901	SCR S-TPG PAN PCS 2X3, CHUCK HOLDER FIX
PM02	614 233 0227	PLATE,BACK YOKE
PM03	614 318 9411	MOUNTING,CHUCK MOUNTING
PM04	411 021 2704	SCR S-TPG BIN 2.6X6,MOUNT-M FIX
PM05	411 020 9100	SCR S-TPG BRZ+FLG 3X12, CHUCK MOUNTING FIX
PM06	614 262 8928	MAGNET,CHUCK
PM07	614 318 9398	HOLDER,CHUCK HOLDER
PM08	614 300 8293	BELT,SQUARE,LOADING
PM09	411 021 2704	SCR S-TPG BIN 2.6X6, PULLEY(A083)FIX
PM10	614 237 7161	PULLEY,LOADING RELAY PULLEY
PM11	614 237 7048	GEAR,LOADING RETARD GEAR 1
PM12	614 300 5124	GEAR,LOADING RETARD
PM13	411 044 7502	SCR PAN+SW 2X5, LOADING MOTOR FIX
PM14	412 047 3904	SPECIAL SCREW,LOADING GEAR FIX
PM15	614 237 7079	GEAR,LOADING GEAR
PM16	411 020 9902	SCR S-TPG BRZ+FLG 3X8, GEAR(A112) FIX
PM17	614 300 5131	GEAR,LOADING CUM GE
PM18	614 237 7208	SLIDE,BASE UP/DOWN
PM19	614 310 5701	CHASSIS,LOADING CHASSIS
PM20	645 032 4352	ASSY,MOTOR LOADING, LOADING MOTOR
PM21	614 310 5060	ASSY,PWB MECHA-M,MOTOR PWB
PM22	614 320 3674	ASSY,PWB MECHA-SW,SW PWB
PM23	411 022 8408	SCR S-TPG PAN 2X8,SW PWB FIX
PM24	614 310 2175	TRAY,TRAY
PM25	411 021 1806	SCR S-TPG BIN 2.6X10,BASE FIX
PM26	411 092 0906	WASHER Z 2.6X10X0.5,BASE FIX
PM27	614 310 3899	SPACER,MECHA, BASE MECHA FLOATING
PM28	614 318 9428	MOUNTING,BASE MECHA MOUNTING
PM29	411 020 9803	SCR S-TPG BRZ+FLG 3X6, CHASSIS SUB FIX
PM30	614 307 9804	ASSY,MECHA,CDDA11N-SASH, BASE MECHANISM

IC BLOCK DIAGRAM & DESCRIPTION

IC101 LA9241ML (Servo Signal Processor)

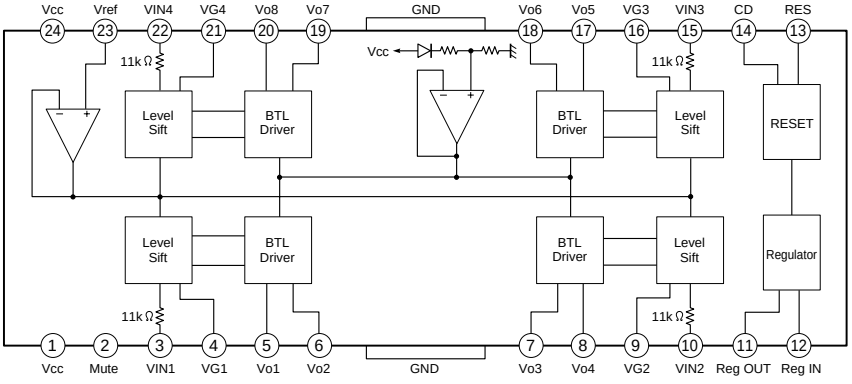


IC132 LB1641L (Bidirectional Motor Driver)

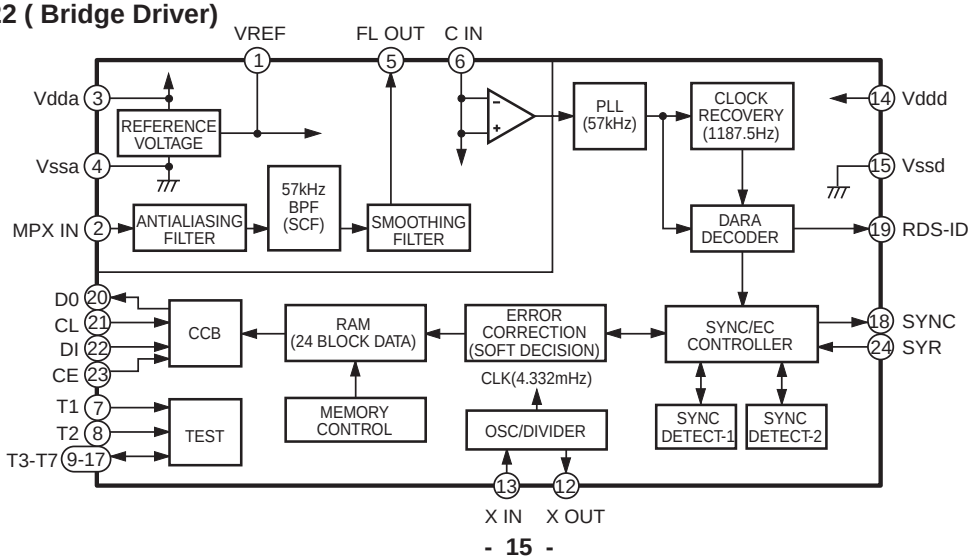


Input		Output		Action
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	Normal(Reverse)Rotary
0	1	0	1	Reverse(Normal)Rotary
1	1	0	0	Brake

IC103 LA6541 (Pick-up Actuator & Motor Driver)

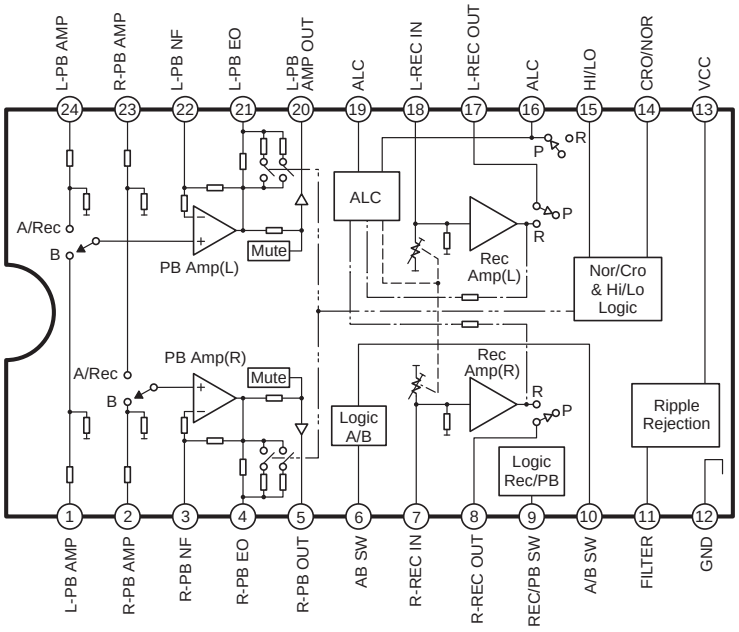

Vcc Vref VIN4 VG4 Vo8 Vo7 GND Vo6 Vo5 VG3 VIN3 CD RES
11kΩ
Level Sift
BTL Driver
RESET
Regulator
Vcc Mute VIN1 VG1 Vo1 Vo2 GND Vo3 Vo4 VG2 VIN2 Reg OUT Reg IN

IC251 LC72722 (Bridge Driver)

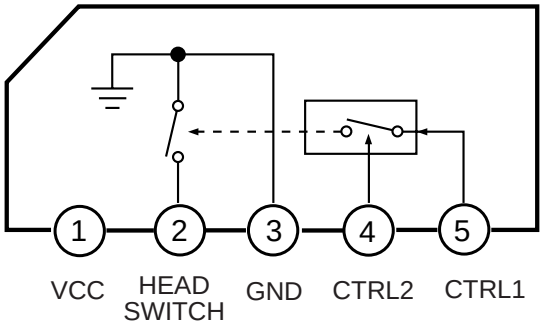


IC BLOCK DIAGRAM & DESCRIPTION

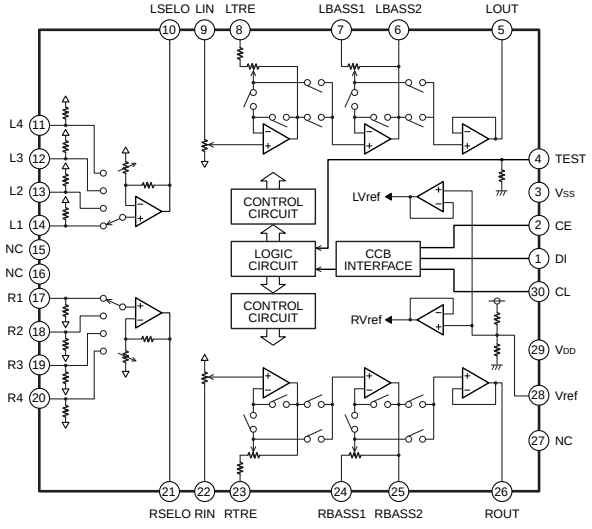
IC460 AN7348K (Play/Rec Pre Amp)



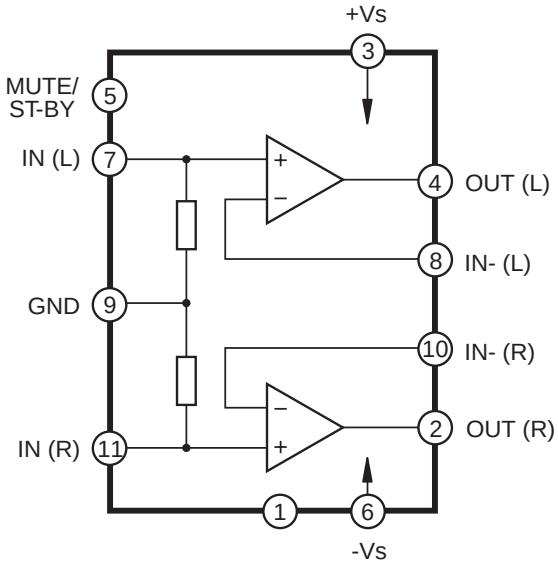
IC470 BA7755A (Head Switch)



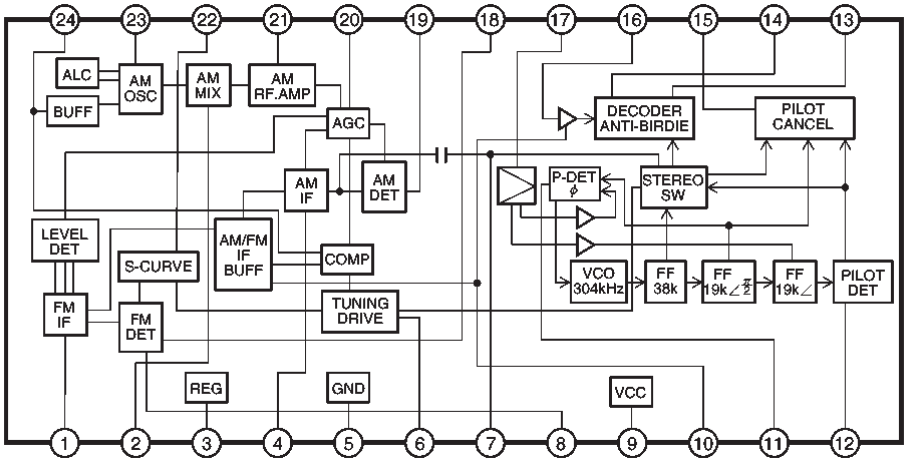
IC450 LC75342M (2 band equalizer)



IC440 TDA7265 (Stereo Amplifier)



IC231 LA1844ML (Tuner System)

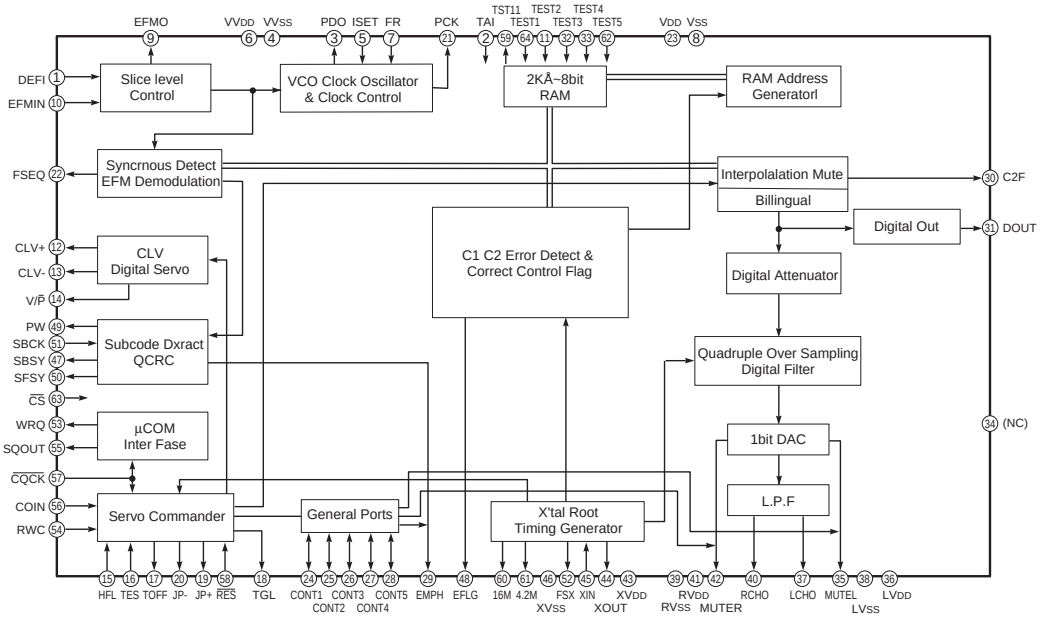


IC BLOCK DIAGRAM & DESCRIPTION

IC102 LC78622NE (Digital Signal Processor)

No.	Pin Name	I/O	Function
1	DEFI	I	Input terminal for detect signal of defect
2	TAI	I	Input terminal for test.
3	PDO	O	The phase comparison output terminal for external VCO control.
4	VVSS	-	Ground terminal for built-in VCO
5	ISET	I	Resistance connection terminal for electric current adjustment of PDO output.
6	VVDD	-	Built-in VCO power supply terminal.
7	FR	I	VCO frequency range adjustment.
8	VSS	-	Ground for Digital
9	EFMO	O	EFM signal output terminal for slice level con
10	EFMIN	I	EFM signal input terminal for slice level contr
11	TEST2	I	TEST pin.
12	CLV+	O	Output terminal for Disc motor control.
13	CLV-	O	Output terminal for Disc motor control.
14	V/P	O	Change of rough servo / phase control Rough servo : "H", Phase control : "L"
15	HFL	I	Input terminal of track search signal.
16	TES	I	Input terminal of tracking error signal.
17	TOFF	O	Output terminal of tracking off.
18	TGL	O	Output terminal for change of tracking gain.
19	JP+	O	Output terminal for tracking jump control.
20	JP-	O	Output terminal for tracking jump control.
21	PCK	O	Clock monitor output terminal for EFM data playback. (4.3218 MHz)
22	FSEQ	O	Output terminal for detect of SYNC signal.
23	VDD	-	+5V (power supply terminal digital circuit)
24	CONT1	I/O	This output can control at serial control from micro processor.
25	CONT2	I/O	
26	CONT3	I/O	
27	CONT4	I/O	
28	CONT5	I/O	
29	EMPH	O	Output terminal of de-emphasis monitor . "H" : de-emphasis
30	C2F	O	Output terminal of C2 flag
31	DOUT	O	Output terminal of digital out

No.	Pin Name	I/O	Function
32	TEST3	I	Test pin.
33	TEST4	I	Test pin.
34	NC	-	Non connection.
35	MUTEL	O	Mute output terminal for L-ch
36	LVDD	-	Power supply for L-ch
37	LCHO	O	Output terminal for L-ch
38	LVSS	-	GND for L-ch
39	RVSS	-	GND for R-ch
40	RCHO	O	Output terminal for R-ch
41	RVDD	-	Power supply for R-ch
42	MUTER	O	Mute output terminal for R-ch
43	XVDD	-	Power supply of crystal oscillation
44	XOUT	O	Connection terminal of crystal oscillation (16.9344M
45	XIN	I	
46	XVSS	-	GND of crystal oscillation
47	SBSY	O	Output terminal for synchronizing signal of sub-cord block
48	EFLG	O	Output terminal for correction monitor of C1, C2, Single and Double
49	PW	O	Output terminal for sub-cord of P, Q, R, S, T, U and W
50	SFSY	O	Output terminal for synchronizing signal of sub-cord frame
51	SBCK	I	Input terminal for readout clock of sub-cord
52	FSX	O	Output terminal of Synchronizing signal (7.35kHz)
53	WRQ	O	Output terminal for standby of sub-cord Q output
54	RWC	I	Input terminal of read / write control
55	SQOUT	O	Output terminal of sub-cord Q
56	COIN	I	Input terminal of command from micro processor
57	CQCK	I	Clock input for reading sub-cord from SQOUT
58	RES	I	Reset (turn on : L)
59	TST11	O	Test pin
60	16M	O	16.9344MHz
61	4.2M	O	4.2336MHz
62	TEST5	I	Test pin
63	CS	I	Chip select terminal
64	TEST1	I	Test pin



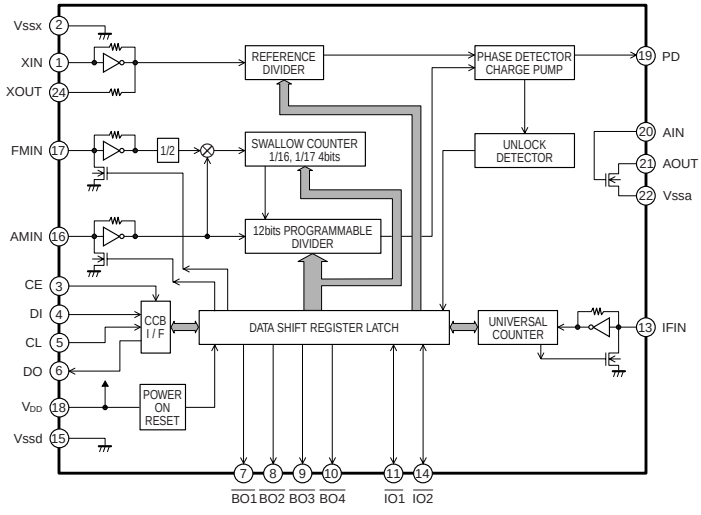
IC BLOCK DIAGRAM & DESCRIPTION

IC601 LC866540A-5Y58(XE,KR)5Y89(TW) (Micro Processor)

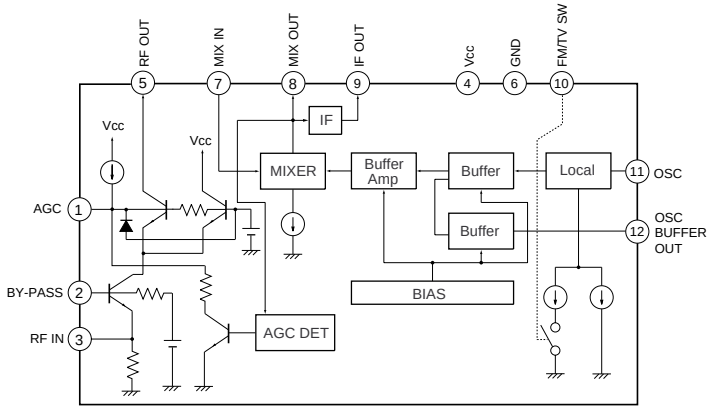
Pin No	Pin Name	Symbol	I/O	Function
1	P06	AMBER_LED	O	AMBER_LED Output
2	P07	DSP_RESET	O	DSP Reset Signal
3	P10/S00	COIN	O	CD_DSPInterface(command+data Output)
4	P11/SIO/SB0	SQOUT	I	CD_DSPInterface(SubQ dataInput)
5	P12/SCK0	CQCK	O	CD_DSPInterface(Clock)
6	P13/S01	VD_GND	O	Processor Power Check (GND) Control Output
7	P14/SII/SB1	Sift	O	Shift Control for Micon Oscillatrion Frequency
8	P15/SCK1	RWC	O	CD_DSP Interface(Command latch Output)
9	P16/BUZ	JOG+	I	Jog Dial +
10	P17/PWM0	JOG-	I	Jog Dial -
11	P70/INT0	DRF	I	DRF Signal Input
12	RES/	Reset		Reset Switch
13	XT1/P74			Sub Clock OSC
14	XT2/P75			Sub Clock OSC
15	VSS1	Vss		Gnd
16	CF1			Main Clock OSC
17	CF2			Main Clock OSC
18	VDD1	Vdd		Power Supply Terminal
19	P80/AN0			
20	P81/AN1	Key1	A/D	Key In
21	P82/AN2	Key2	A/D	Key In
22	P83/AN3	Open SW	I	Top Lid Open Sens. Switch
23	P84/AN4	Close SW	I	Top Lid Close Sens. Switch
24	P85/AN5	LIMIT_SW	I	Limit Switch
25	P86/AN6	C2F	I	DSP C2F Input
26	P87/AN7	M-Media	I	Multi Media Input
27	P71/INT1	WRQ	I	CD DSP Interface (SubQ Request)
28	P72/INT2/TOIN	RDS_IN	I	Serial Data for RDS IC Input
29	P73/INT2/TOIN	IR	I	Remotecontrol Input
30	S0/PA0	V CHK	I	Power failure Detect/Processor Power Check Input
31	S1/PA1	G_REVS	I	Miss Recording SW(tapeAB side)Input
32	S2/PA2	G_FWD	I	Miss Recording SW(tapeB side)Input
33	S3/PA3	PACK	I	Tape Park Check Input
34	S4/PA4	TAPE_INI	I	Tape Deck Initialize
35	S5/PA5	REEL	I	Real Rotating signal Input
36	S6/PA6	Tape Play PL	O	Tape Play Plunger Output
37	S7/PA7	Motor	O	Tape Motor Output
38	S8/PA8	BEAT	O	Beat Cancel Control
39	S9/PB1	R Mute	O	Tape Recording Mute
40	S10/PB2	OSC	O	Tape Oscillation ON/OFF Control
41	S11/PB3	SURROUND	O	Surround Output
42	S12/PB4		O	LCD Pin No5
43	S13/PB5		O	LCD Pin No6
44	S14/PB6		O	LCD Pin No7
45	S15/PB7		O	LCD Pin No8
46	S16/PC0		O	LCD Pin No9
47	S17/PC1		O	LCD Pin No10
48	S18/PC2		O	LCD Pin No11
49	S19/PC3		O	LCD Pin No12
50	S19/PC4		O	LCD Pin No13

Pin No	Pin Name	Symbol	I/O	Function
51	S21/PC5		O	LCD Pin No14
52	S22/PC6		O	LCD Pin No15
53	S23/PC7		O	LCD Pin No16
54	S24/PD0		O	LCD Pin No17
55	S25/PD1		O	LCD Pin No18
56	VDD2	Vdd	O	Vdd
57	VSS2	Vss	O	Gnd
58	S26/PD2		O	LCD Pin No19
59	S27/PD3		O	LCD Pin No20
60	S28/PD4		O	LCD Pin No21
61	S29/PD5		O	LCD Pin No22
62	S30/PD6		O	LCD Pin No23
63	S31/PD7		O	LCD Pin No24
64	S32/PE0		O	LCD Pin No25
65	S33PE1		O	LCD Pin No26
66	S34/PE2		O	LCD Pin No27
67	S35/PE3		O	LCD Pin No28
68	S36/PE4		O	LCD Pin No29
69	S37/PE5		O	LCD Pin No30
70	S38/PE6		O	LCD Pin No31
71	S39/PE7		O	LCD Pin No32
72	S40/PF0		O	LCD Pin No33
73	S41/PF1		O	LCD Pin No34
74	S42/PF2		O	LCD Pin No35
75	S43/PF3		O	LCD Pin No36
76	S44/PF4		O	LCD Pin No37
77	S45/PF5		O	LCD Pin No38
78	S46/PF6		O	LCD Pin No39
79	S47/PF7		O	LCD Pin No40
80	V3/PL6			
81	V2/PL5			
82	V1/PL4			
83	COM0/PL0	LCD COM1	O	LCD COM 1 (LCD Panel Pin1)
84	COM1/PL1	LCD COM2	O	LCD COM 2 (LCD Panel Pin2)
85	COM2/PL2	LCD COM3	O	LCD COM 3 (LCD Panel Pin3)
86	COM4/PL3	LCD COM4	O	LCD COM 4 (LCD Panel Pin4)
87	P30	D CHK	O	Serial Clock Output for Tuner/Volume FUNC IC
88	P31	TU_DUT	O	Serial Data Output for Tuner IC
89	VSS3	Vss		Gnd
90	VDD3	Vdd		Power Supply Terminal
91	P32	VF_DO	O	Serial Data Output for VOL_FUNC IC
92	P33	VF_CE	O	Serial Data Output for VOL_FUNC IC
93	P34	TU_CE	O	Serial Latch Output for TU IC
94	P35	TU_DI	I	Serial Data Input for TU IC
95	P00	LID_M+	O	Top Lid Motor Control Output +
96	P01	LID_M-	O	Top Lid Motor Control Output -
97	P02	P_CON	O	Power Control
98	P03	PRE_MUTE	O	Pre Amp Mute Output
99	P04	MAIN_MUTE	O	Power Amp Mute
100	P05	BLUE_LED	O	Blue LED Output

IC241 LC72121M-D (Pll Synthesizer)

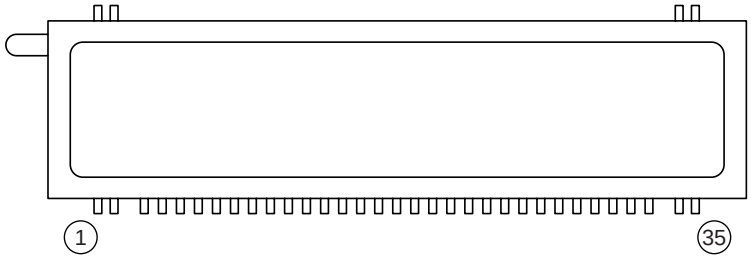


IC211 TA8176SN (FM Front End)



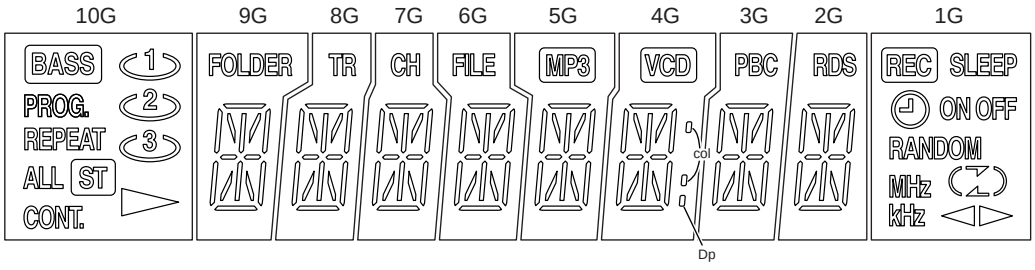
FL DISPLAY DESCRIPTION

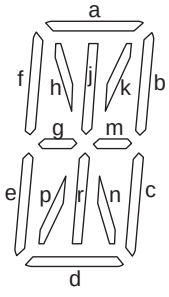
FL601



PIN No.	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18
CONNECTION	F2	F2	NP	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NX	NX	P17	P16	P15

PIN No.	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	F1	F1





(2G~9G)

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	1	FOLDER	TR	CH	FILE	MP3	VCD	PBC	RDS	REC
P2	(1)	a	a	a	a	a	a	a	a	SLEEP
P3	BASS	b	b	b	b	b	b	b	b	
P4	2	f	f	f	f	f	f	f	f	ON
P5	(2)	h	h	h	h	h	h	h	h	OFF
P6	PROG.	j	j	j	j	j	j	j	j	RANDOM
P7	3	k	k	k	k	k	k	k	k	
P8	(3)	g	g	g	g	g	g	g	g	
P9	REPEAT	m	m	m	m	m	m	m	m	
P10	ST	-	-	-	-	-	col	-	-	
P11	ALL	c	c	c	c	c	c	c	c	MHz
P12		e	e	e	e	e	e	e	e	
P13	CONT.	p	p	p	p	p	p	p	p	
P14	-	r	r	r	r	r	r	r	r	kHz
P15	-	n	n	n	n	n	n	n	n	-
P16	-	d	d	d	d	d	d	d	d	-
P17	-	-	-	-	-	-	-	-	-	-

VOLTAGE TABLE

IC101 LA9241M (64PIN) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	2.53	2.53	2.55	2.55	2.54	2.54	2.53	2.54	2.53	2.54	2.53	2.53	2.5	2.54	2.52	2.4	2.54	2.63
PIN	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOL(V)	2.54	2.52	2.54	0	2.46	2.46	2.46	2.54	2.54	2.54	2.64	2.3	2.31	0	0	4.97	0	0.75
PIN	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
VOL(V)	0.03	0.06	0	0.53	2.35	2.45	2.43	2.53	0	2.53	2.53	0	0	2.31	4.5	0	0	4.88
PIN	55	56	57	58	59	60	61	62	63	64								
VOL(V)	0	4.99	2.54	2.54	0	0	2.23	3.85	0.2	4.99								

IC102 LC78622NE (64PIN) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	0	0	1.65	0	1.55	4.98	0.35	0	2.52	2.43	0	0.5	0	0	0.03	0.8	0	4.97
PIN	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOL(V)	0.01	0.01	2.43	4.98	4.98	4.86	0.01	0.01	0.01	0.01	4.98	0.01	2.49	0	0	0.01	0.01	5.1
PIN	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
VOL(V)	2.06	0.02	0.02	2.07	5.07	0.01	4.98	2.08	2.04	0	0.11	0.05	0.11	2.49	0.1	2.48	0.95	0.01
PIN	55	56	57	58	59	60	61	62	63	64								
VOL(V)	0.08	0.01	4.45	4.77	0.01	2.17	2.19	0	0	0								

IC103 LA6541 (24PIN) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	7.89	4.83	2.83	2.54	3.98	3.18	3.5	3.63	2.54	2.6	5	7.31	4.96	4.82	2.52	2.53	3.62	3.64
PIN	19	20	21	22	23	24												
VOL(V)	3.64	3.64	2.53	2.54	2.54	8.04												

IC132 LB1641 (10PIN) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10								
VOL(V)	0	0.58	0.75	0.71	0.01	0.01	8.67	8.67	0.75	0.58								

IC211 TA8176S (12PIN) (for KR & TW ONLY) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12						
VOL(V)	2.88	1.47	0.74	8.01	7.98	0	1.86	8.01	7.74	0	7.95	7.83						

IC231 LA1844ML (24PIN) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	2.31	6.62	2.31	2.29	0	0.02	0.03	6.64	6.62	0.04	5.55	5.65	3.22	3.22	2.18	2.3	2.05	2.73
PIN	19	20	21	22	23	24												
VOL(V)	0	3.11	2.38	2.38	6.62	5.13												

IC241 LC72121 (24PIN) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	1.6	0	0.2	0.13	0.14	0.03	0.08	11.14	5.34	0.04	0.61	0	0	0.02	0	0	1.61	3.13
PIN	19	20	21	22	23	24												
VOL(V)	0.84	0.84	5.72	0	0	1.61												

IC251 LC72722 (24PIN) (for XE ONLY) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	2.42	2.41	4.83	0	2.42	2.4	0.01	0.01	0	0.2	0.3	2.47	2.39	4.82	0.01	0.01	0.01	0.04
PIN	19	20	21	22	23	24												
VOL(V)	0.01	4.61	0.14	0.13	0.2	0.01												

IC440 TDA7265 (11PIN) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11							
VOL(V)	-23.6	0.07	22.6	0.06	13.6	-23.5	0	0	0	0	0							

IC450 LC75342 (30PIN) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	0.02	0.01	0	0	3.59	3.59	3.57	3.58	3.58	3.59	3.57	3.57	3.57	3.57	0	0	3.57	3.57
PIN	19	20	21	22	23	24	25	26	27	28	29	30						
VOL(V)	3.58	3.58	3.59	3.58	3.57	3.57	3.6	3.59	0	3.59	7.18	0.01						

IC460 AN7348K (24PIN) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	0.04	0.04	0.68	3.98	3.31	0.06	0	0.01	0.02	0	5.05	0	7.13	0	0	0	0	0
PIN	19	20	21	22	23	24												
VOL(V)	0.17	3.31	3.98	0.68	0	0												

IC470 BA7755A (5PIN) UNIT:V

PIN	1	2	3	4	5													
VOL(V)	8.26	0.01	0	0	0													

VOLTAGE TABLE

IC601 LC866540A-5Y89 (100PIN) (for XE) UNIT:V

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	0.48	4.85	0	0.01	0	0	0	0	0	4.78	0	4.77	2.41	2.47	0	2.11	2.38	4.78
PIN	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOL(V)	4.87	4.87	2.44	0	0	0	0	0	0	4.84	4.86	0	0	0	0	0	0	-25.47
PIN	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
VOL(V)	-25.45	-25.45	-25.45	-25.45	-25.45	-25.46	-25.45	-25.46	-25.49	4.78	-28.31	-11.65	-24.91	-21.6	0	-28.31	-18.2	-14.77
PIN	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
VOL(V)	-28.31	-21.53	-24.93	-24.91	-21.59	-21.5	-18.22	-14.82	-11.64	-28.29	0	0	0	4.48	0	0	0	4.78
PIN	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
VOL(V)	4.87	4.87	4.87	4.87	4.69	4.78	4.73	0	0	4.72	0	4.78	4.72	0	4.78	0.02	0	4.78
PIN	91	92	93	94	95	96	97	98	99	100								
VOL(V)	0	4.72	0.02	0.02	4.75	0.02	4.8	4.82	0.07	0								

IC601 LC866540A-5Y89 (100PIN) (for KR & TW) UNIT:V

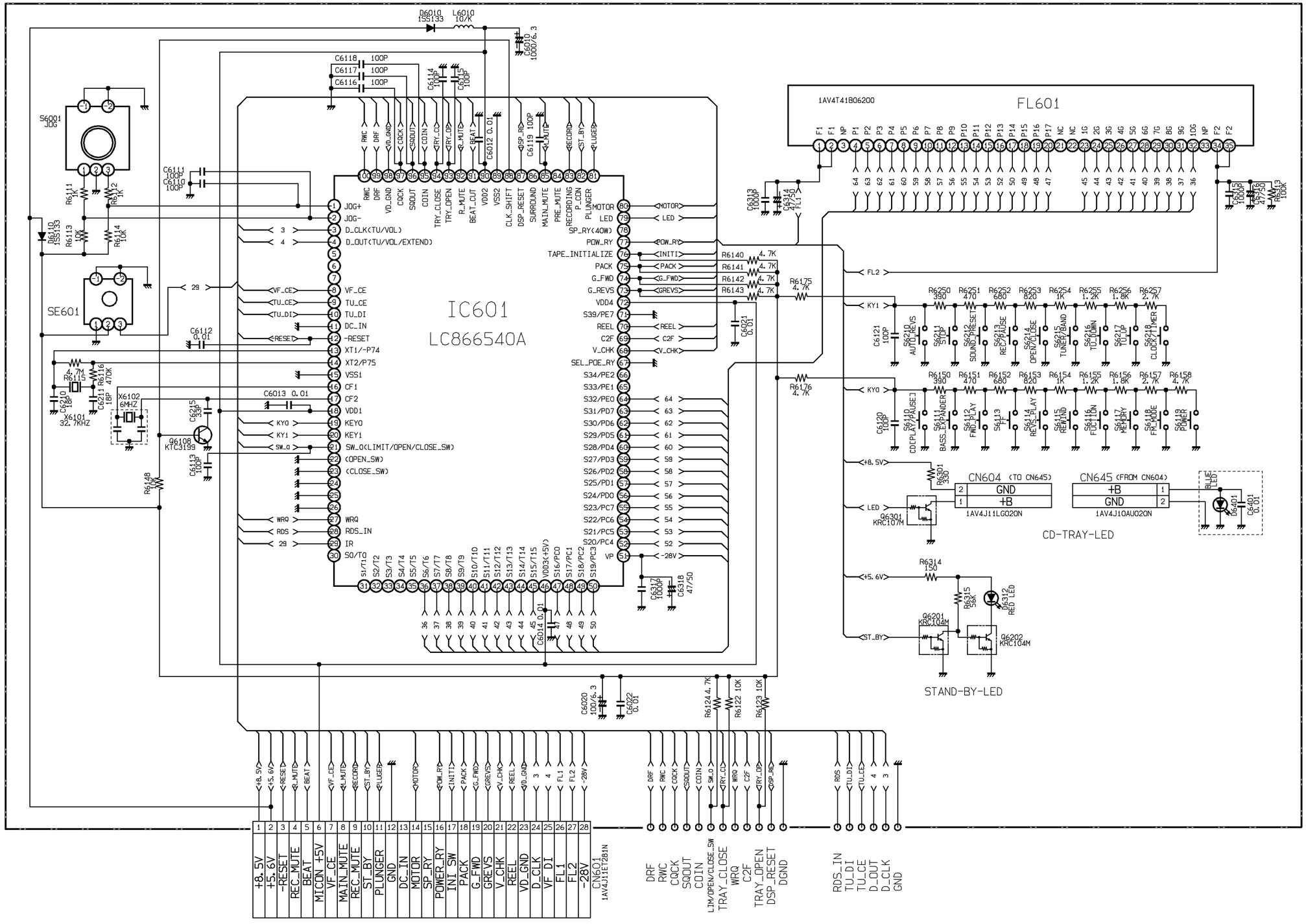
PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOL(V)	0.48	4.85	0	0.01	0	0	0	0	0	4.78	0	4.77	2.41	2.47	0	2.11	2.38	4.78
PIN	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOL(V)	4.87	4.87	2.44	0	0	0	0	0	0	0	4.86	0	0	0	0	0	0	-25.47
PIN	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
VOL(V)	-25.45	-25.45	-25.45	-25.45	-25.45	-25.46	-25.45	-25.46	-25.49	4.78	-28.31	-11.65	-24.91	-21.6	0	-28.31	-18.2	-14.77
PIN	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
VOL(V)	-28.31	-21.53	-24.93	-24.91	-21.59	-21.5	-18.22	-14.82	-11.64	-28.29	0	0	4.87	4.48	0	0	0	4.78
PIN	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
VOL(V)	4.87	4.87	4.87	4.87	4.69	4.78	4.73	0	0	4.72	0	4.78	4.72	0	4.78	0.02	0	4.78
PIN	91	92	93	94	95	96	97	98	99	100								
VOL(V)	0	4.72	0.02	0.02	4.75	0.02	4.8	4.82	0.07	0								

TRANSISTOR (for XE) UNIT:V

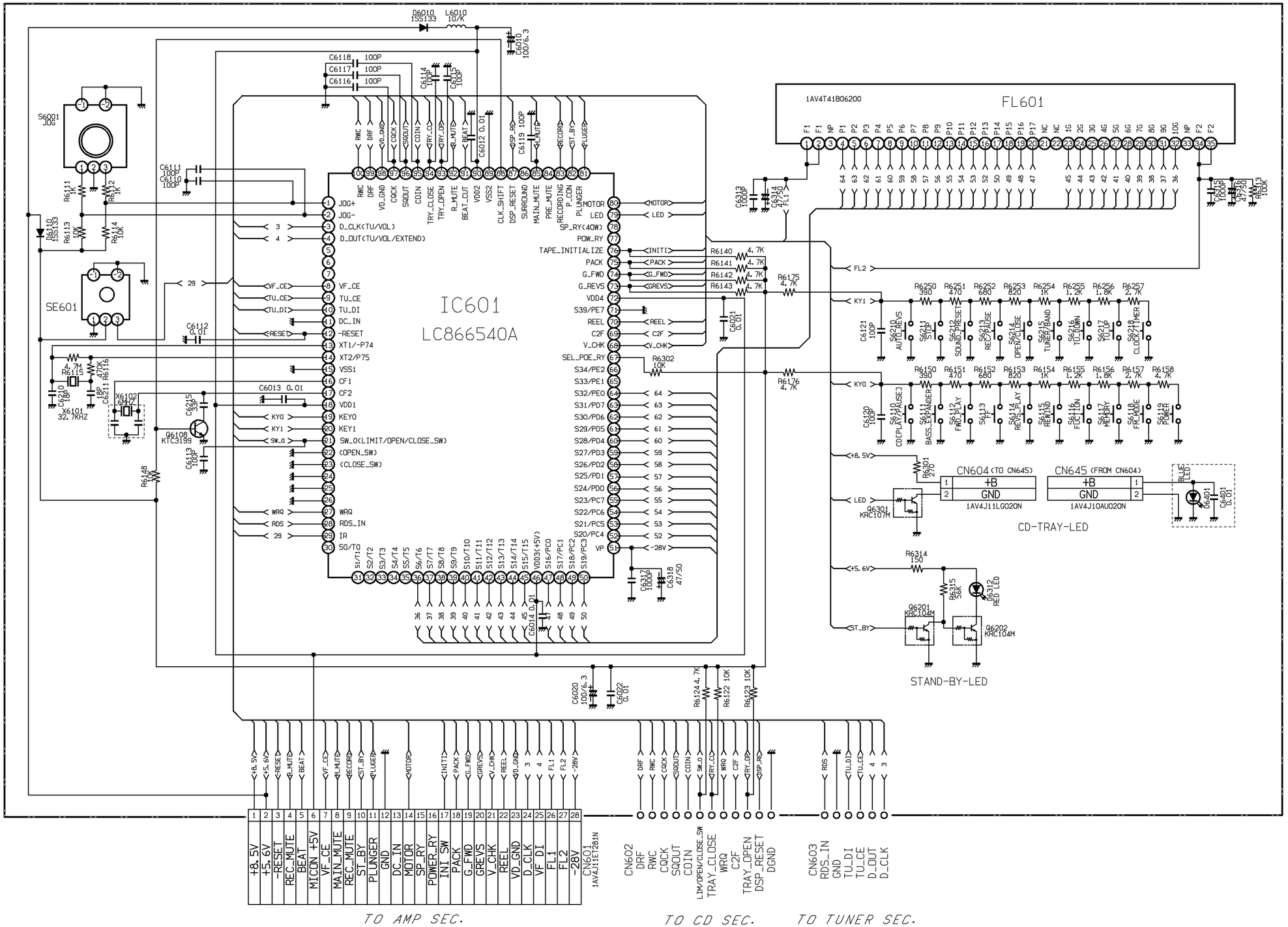
	Q1301	Q1401	Q2140	Q2152	Q2153	Q2154	Q2155	Q2156	Q2157	Q2201	Q2310	Q2451	Q2452	Q2453	Q2502	Q2900	Q4020	Q4030
E	4.93	7.87	0.01	0.01	0.01	0.01	0.01	0.01	9.11	0.01	4.87	11.35	11.34	11.33	2.86	11.32	0.01	5.5
C	1.51	5.01	0.01	0.01	0.01	0.01	0.01	0.02	0.26	0.01	6.67	0.01	11.29	-0.26	2.86	12.06	0.11	11.62
B	4.31	7.25	0.68	-0.26	0.8	-0.26	-0.26	0.8	0.01	0.01	5.43	11.28	0.16	11.03	0.62	12.03	0.77	6.11
	Q4210	Q4211	Q4212	Q4220	Q4221	Q4222	Q4310	Q4320	Q4321	Q4330	Q4340	Q4400	Q4410	Q4420	Q4610	Q4620	Q4700	Q4701
E	0	12.72	12.54	0	9.37	8.73	5.52	4.51	4.53	0	-28.5	3.29	0	0	0	0	8.74	0
C	0.01	23.08	23.08	0.01	22.95	22.95	21.49	3.88	4.47	0	-41	18.94	3.28	0	0	0	8.72	8.72
B	0.01	13.13	12.75	0.01	9.94	9.37	6.11	7.7	3.89	0.67	-29.1	3.87	0	0.67	2.79	2.79	0.01	0
	Q4720	Q4730	Q4840	Q4850	Q4930	Q4931	Q4940	Q4941	Q4970	Q6108	Q6201	Q6202	Q6301					
E	0	0	4.78	0	12.09	0	12.09	0	5.55	0	0	0	0					
C	0	0.01	4.78	4.78	11.6	11.63	11.64	11.64	0.01	0.49	0.01	4.25	0					
B	0	0.01	4.32	0	0	0	0.46	0	5.54	0.02	4.72	0.01	4.74					

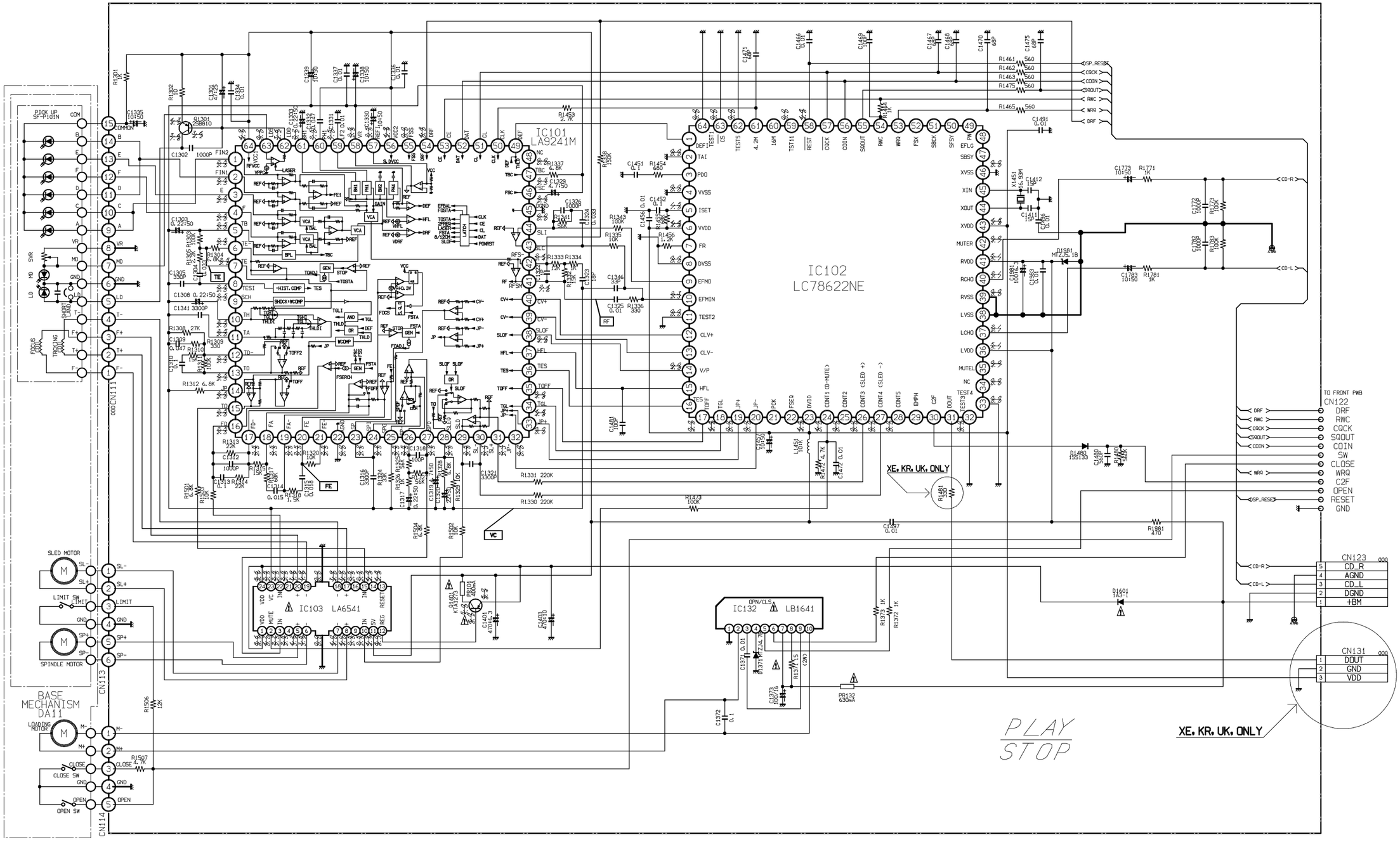
TRANSISTOR (for KR & TW) UNIT:V

	Q1301	Q1401										Q2451				Q2900		
E	4.93	7.87										11.35				11.32		
C	1.51	5.01										0.01				12.06		
B	4.31	7.25										11.28				12.03		
	Q4210	Q4211	Q4212	Q4220	Q4221	Q4222	Q4310	Q4320	Q4321	Q4330	Q4340	Q4400	Q4410	Q4420	Q4610	Q4620	Q4700	Q4701
E	0	12.72	12.54	0	9.37	8.73	5.52	4.51	4.53	0	-28.5	3.29	0	0	0	0	8.74	0
C	0.01	23.08	23.08	0.01	22.95	22.95	21.49	3.88	4.47	0	-41	18.94	3.28	0	0	0	8.72	8.72
B	0.01	13.13	12.75	0.01	9.94	9.37	6.11	7.7	3.89	0.67	-29.1	3.87	0	0.67	2.79	2.79	0.01	0
	Q4720	Q4730	Q4840	Q4850	Q4930	Q4931	Q4940	Q4941	Q4970	Q6108	Q6201	Q6202	Q6301					
E	0	0	4.78	0	12.09	0	12.09	0	5.55	0	0	0	0					
C	0	0.01	4.78	4.78	11.6	11.63	11.64	11.64	0.01	0.49	0.01	4.25	0					
B	0	0.01	4.32	0	0	0	0.46	0	5.54	0.02	4.72	0.01	4.74					



This is a basic schematic diagram.


IC601
LC866540A
FL601
1AV4T41B06200
CD-TRAY-LED
STAND-BY-LED
CN604 (TO CN645)
CN645 (FROM CN604)
1AV4J11LGO20N
1AV4J10AUO20N
CN601
1AV4J11E128N
CN602
CN603
TO AMP SEC.
TO CD SEC.
TO TUNER SEC.



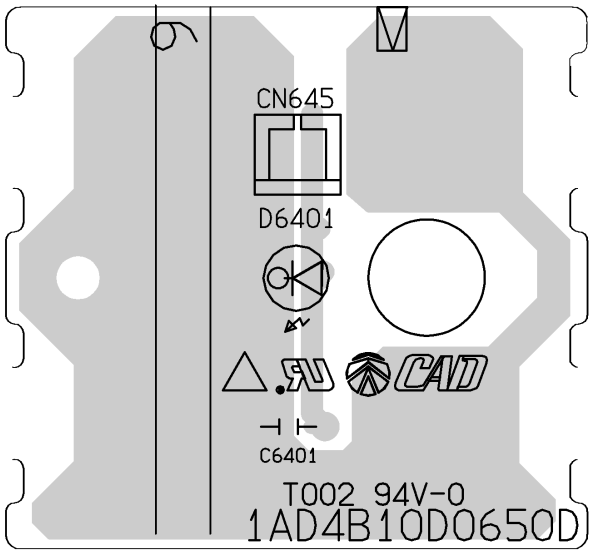
PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designated components in which safety can be of special significance. When replacing a component identified by ⚠ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

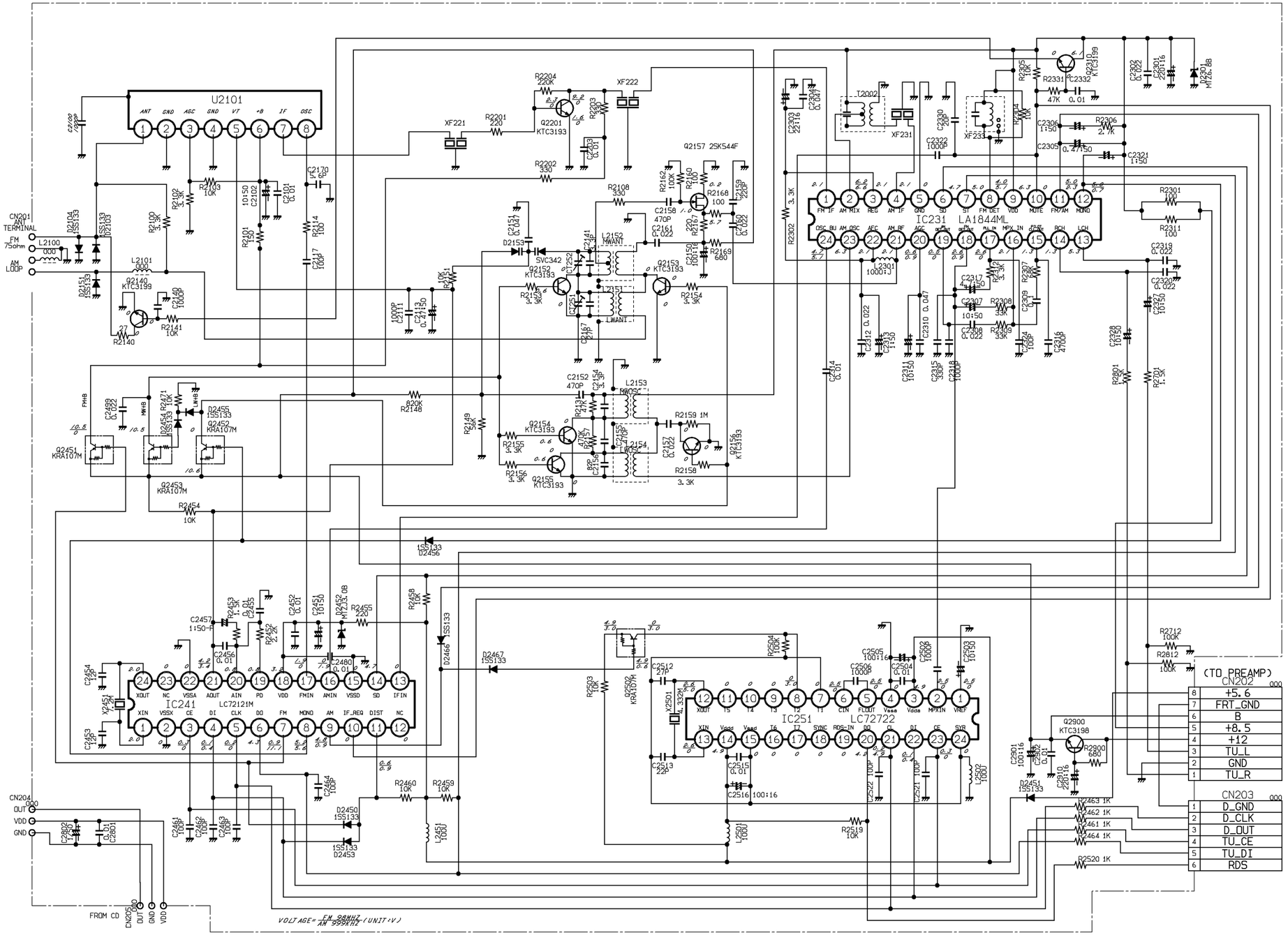
This is a basic schematic diagram.

WIRING DIAGRAM (CD TRAY LED & KOUTE)

CD TRAY LED P.W.BOARD



KOUTE P.W.BOARD



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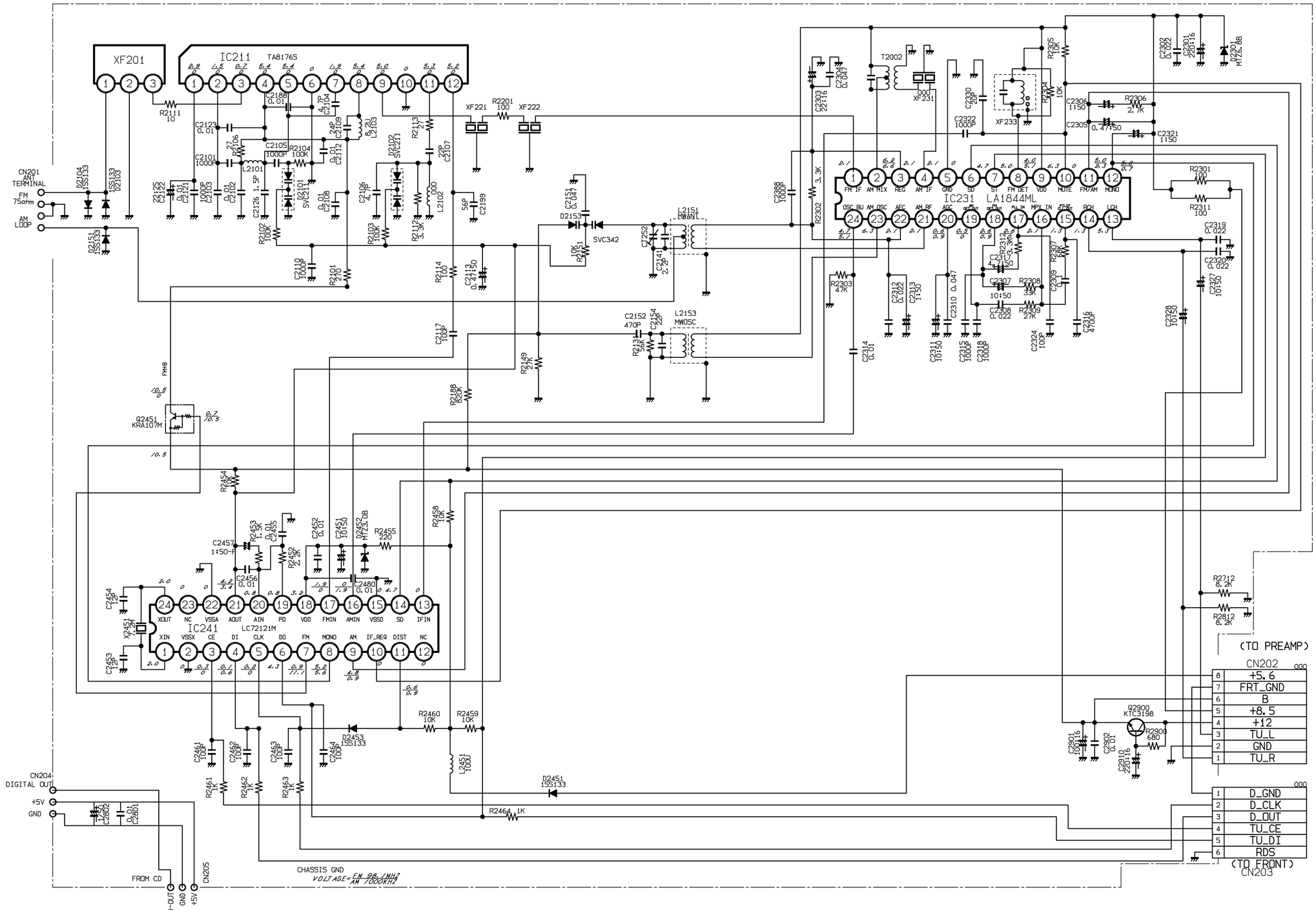
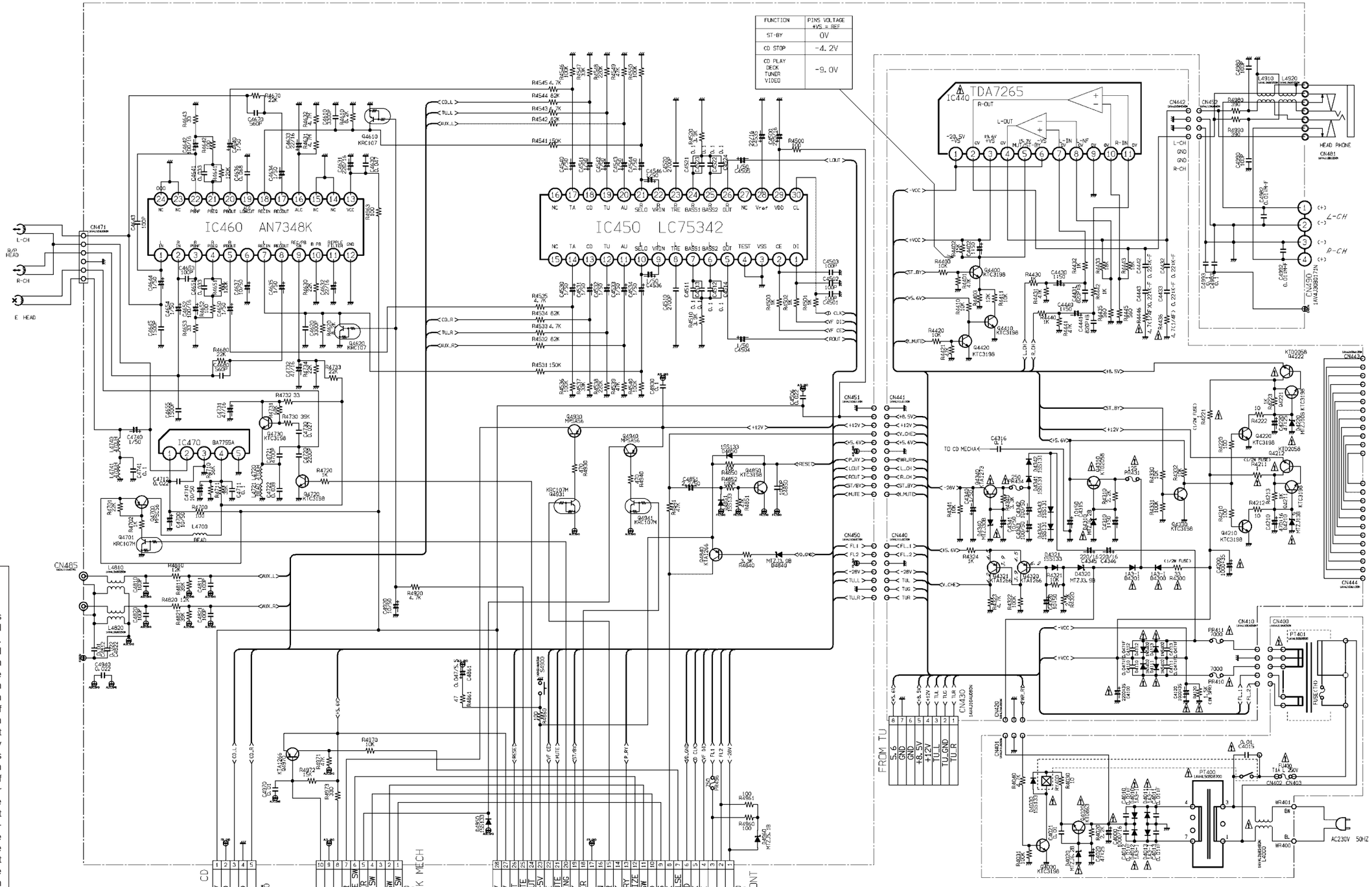
This is a basic schematic diagram.

SCHEMATIC DIAGRAM (TUNER for KR & TW)



This is a basic schematic diagram.

SCHEMATIC DIAGRAM (AMPLIFIER for XE)



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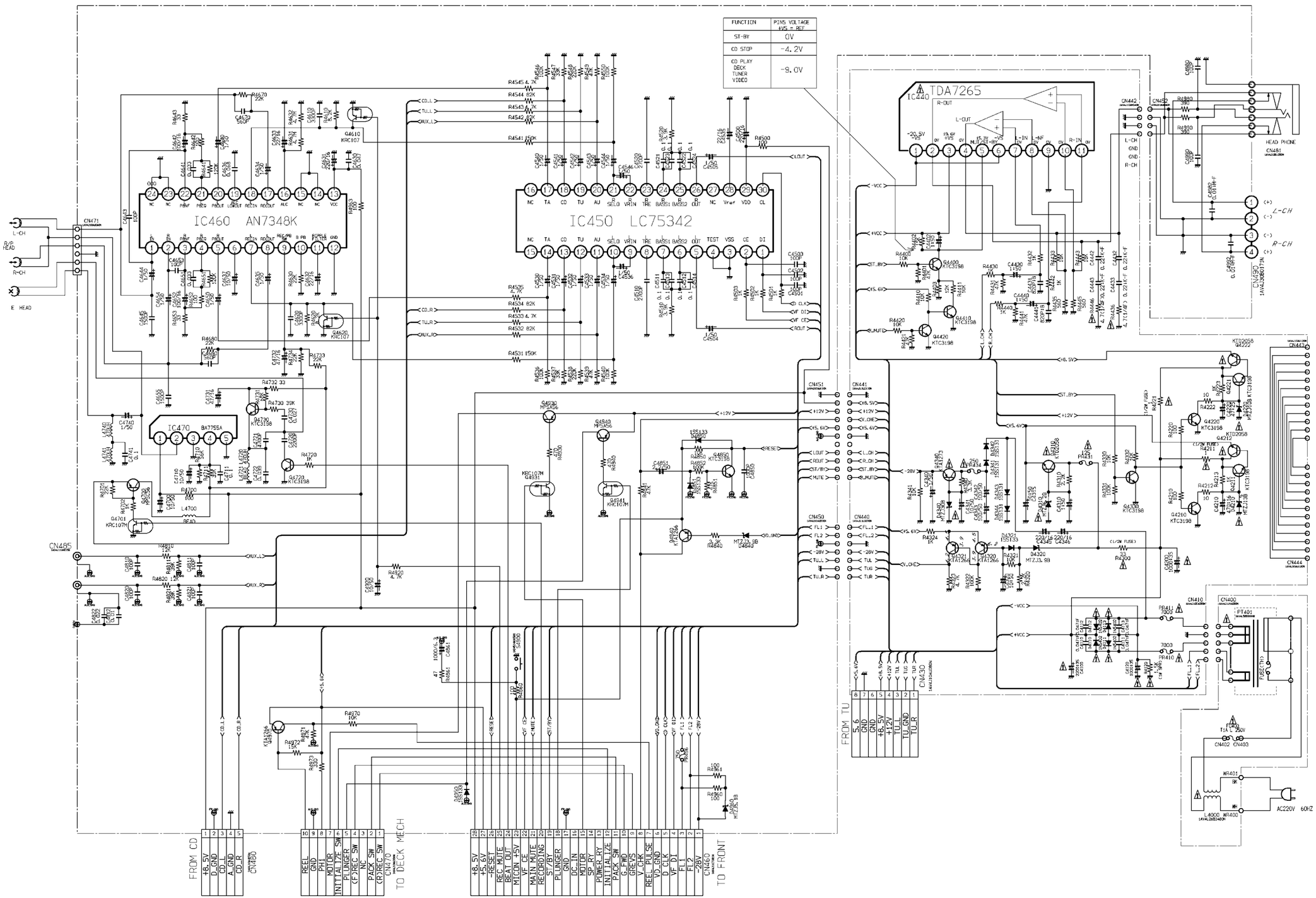
This is a basic schematic diagram.



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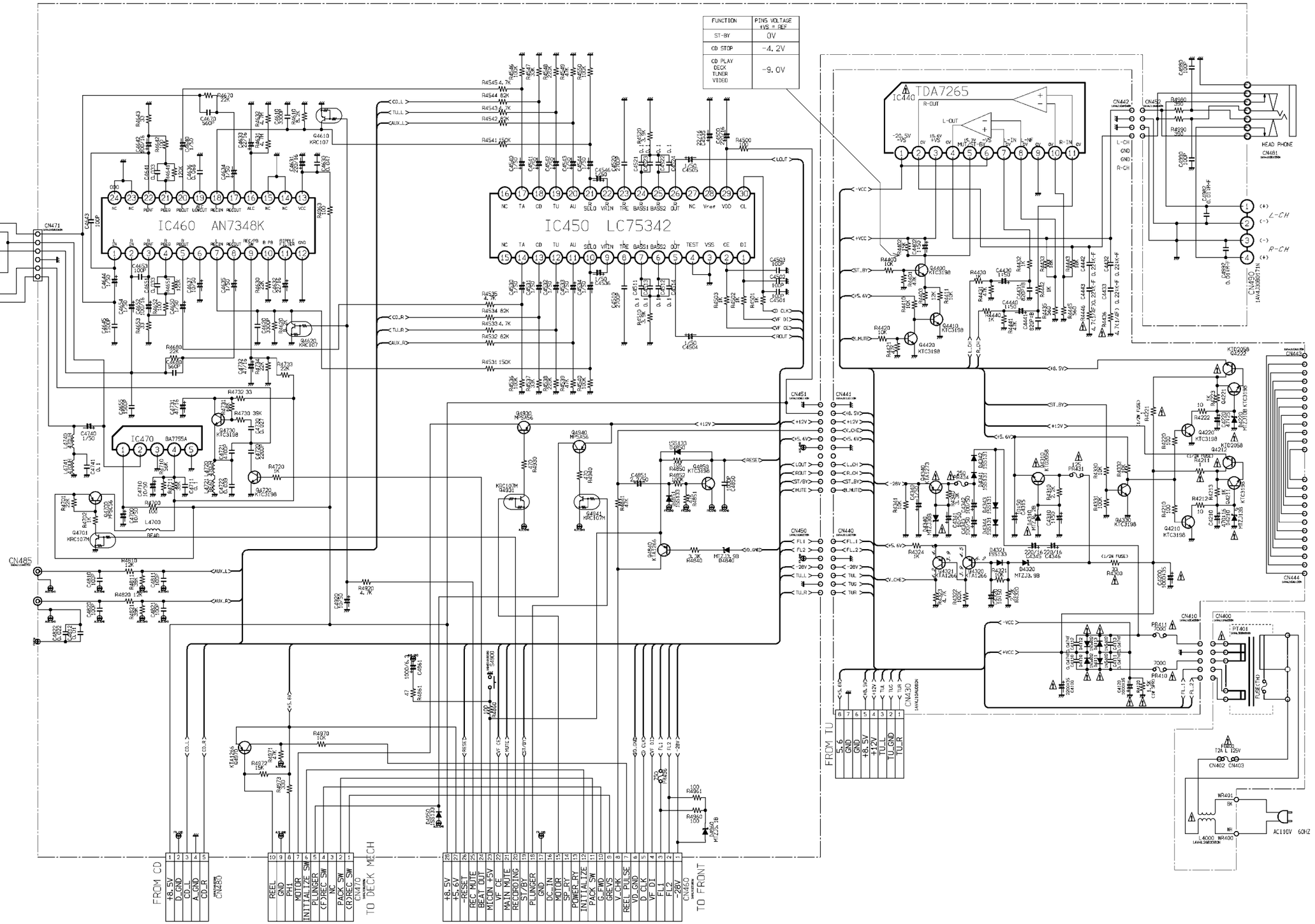
This is a basic schematic diagram.



FUNCTION	PIN5 VOLTAGE +VS = REF
ST-BY	0V
CD STOP	-4.2V
CD PLAY DECK TUNER VIDEO	-9.0V

PRODUCT SAFETY NOTICE

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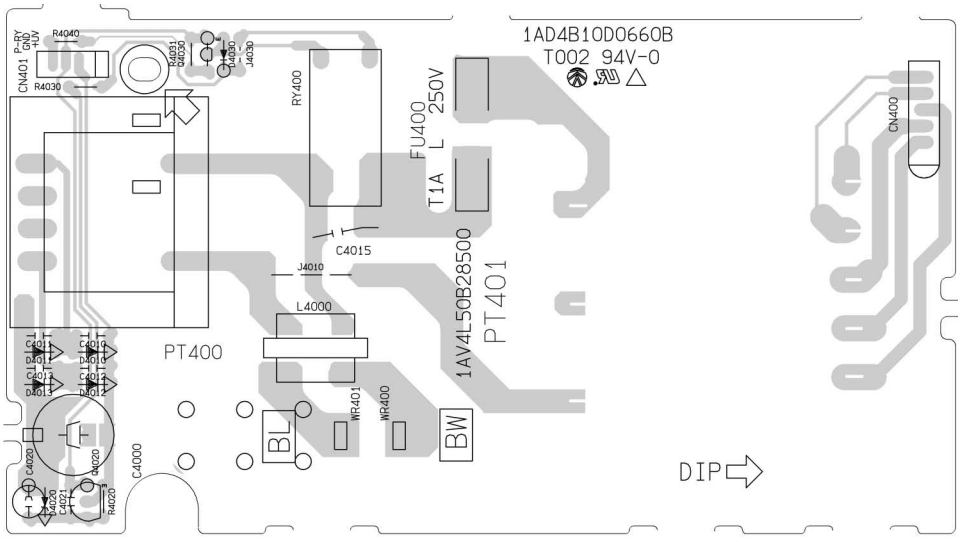
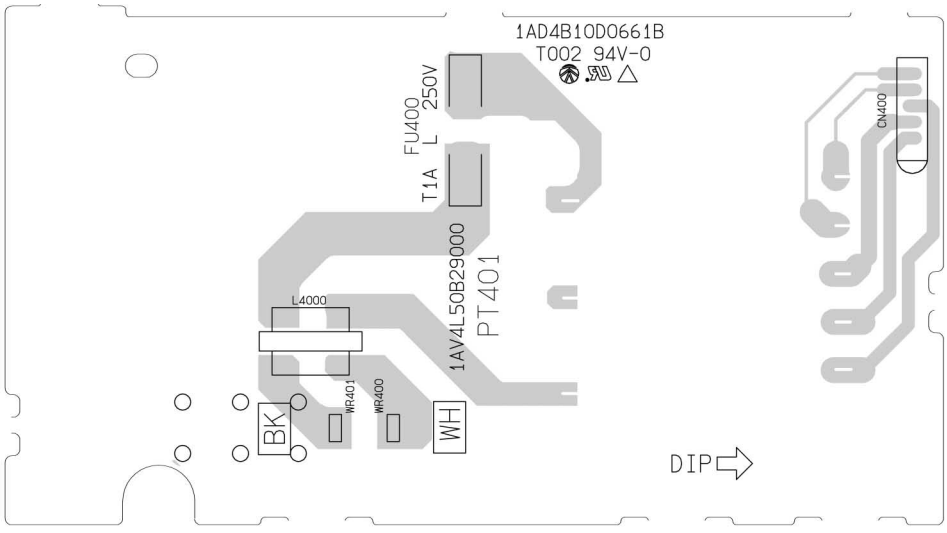
This is a basic schematic diagram.

WIRING DIAGRAM (POWER SUPPLY)

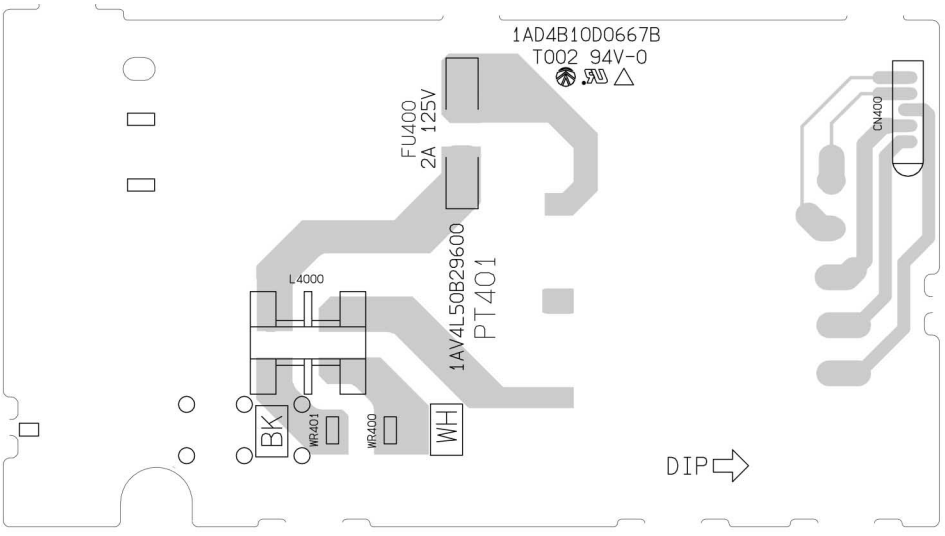
POWER SUPPLY P.W.BOARD for XE



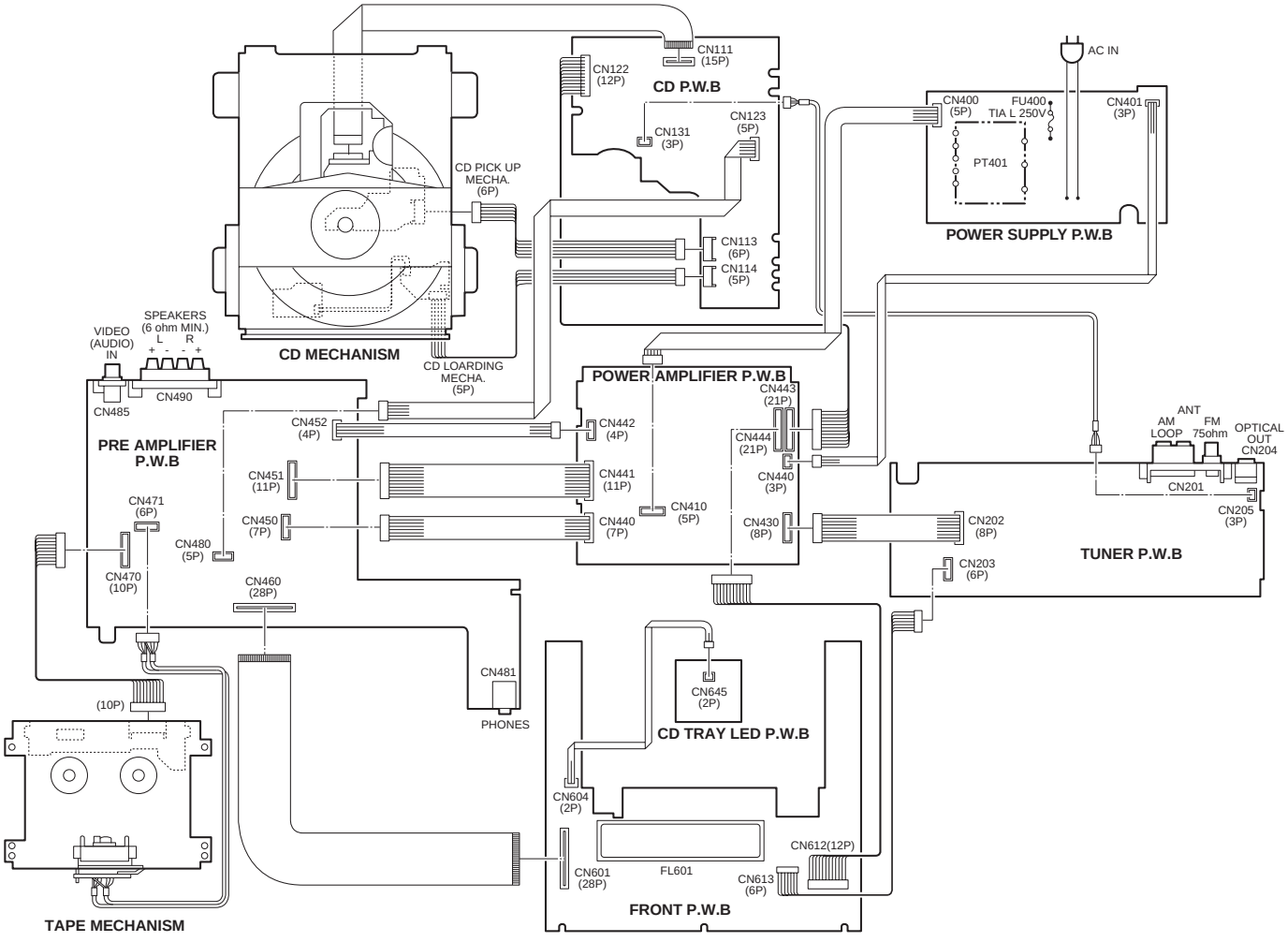
POWER SUPPLY P.W.BOARD for KR



POWER SUPPLY P.W.BOARD for TW



WIRING CONNECTION



SANYO

SANYO Electric Co., Ltd.
Osaka, Japan

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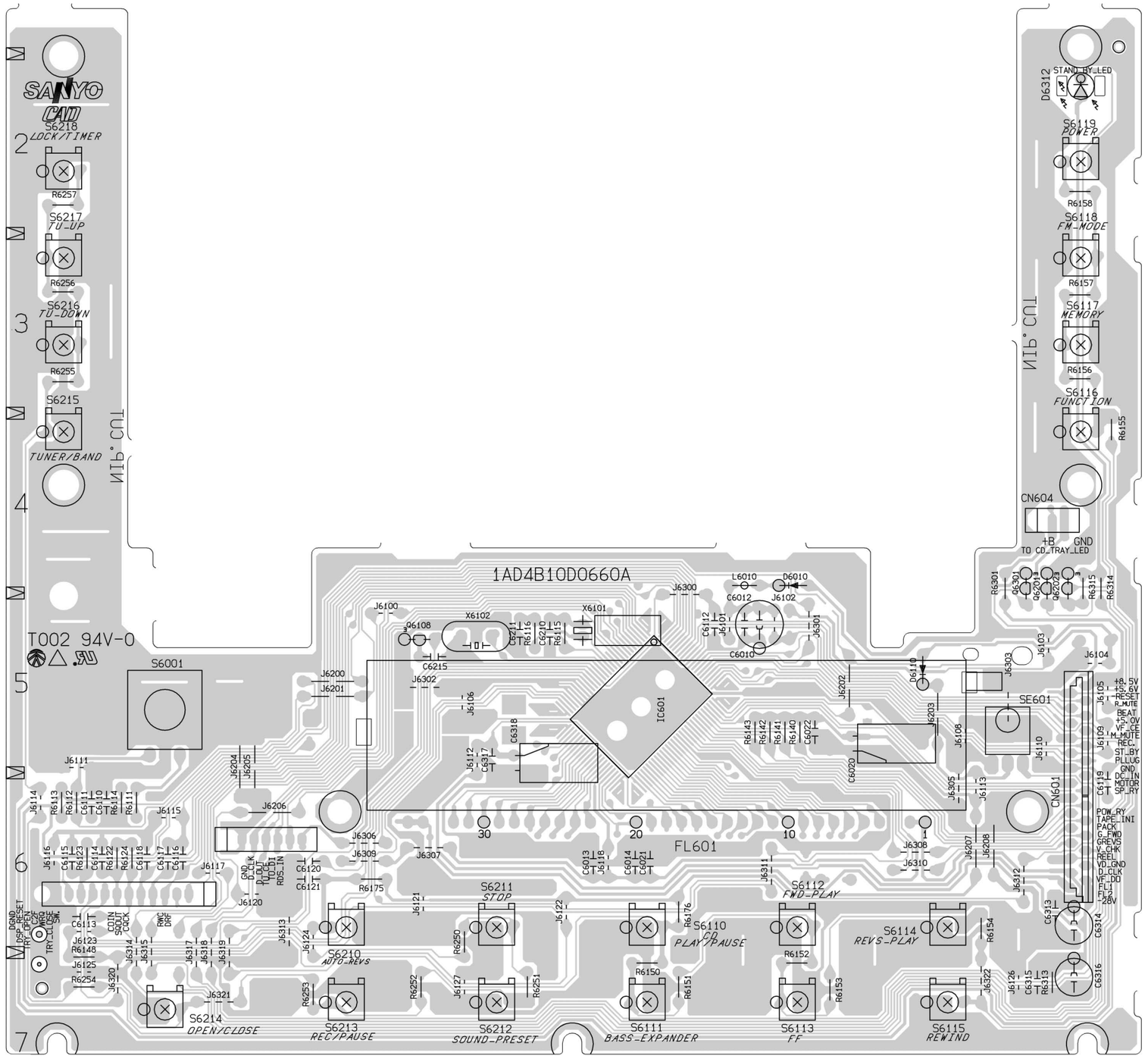
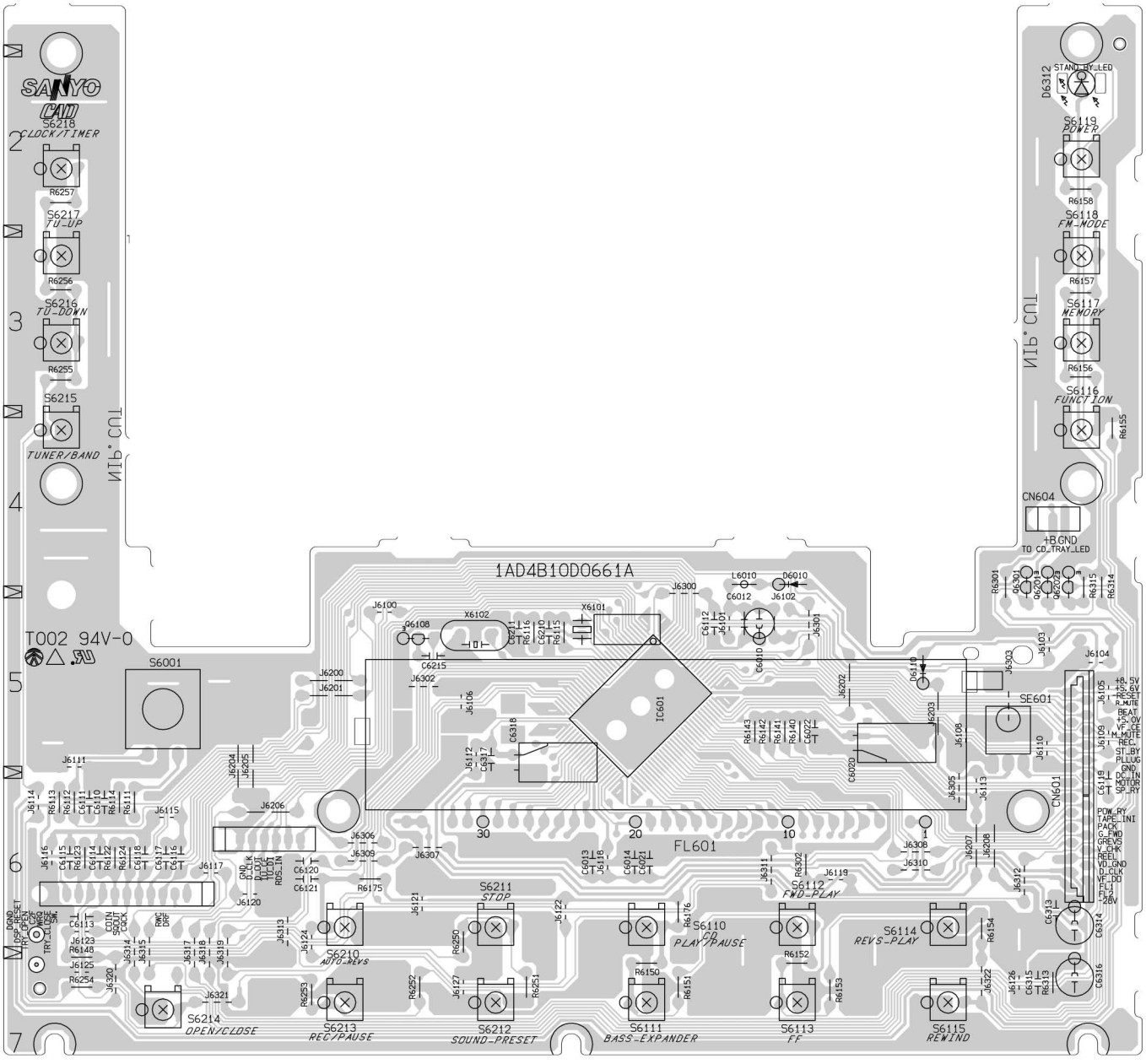
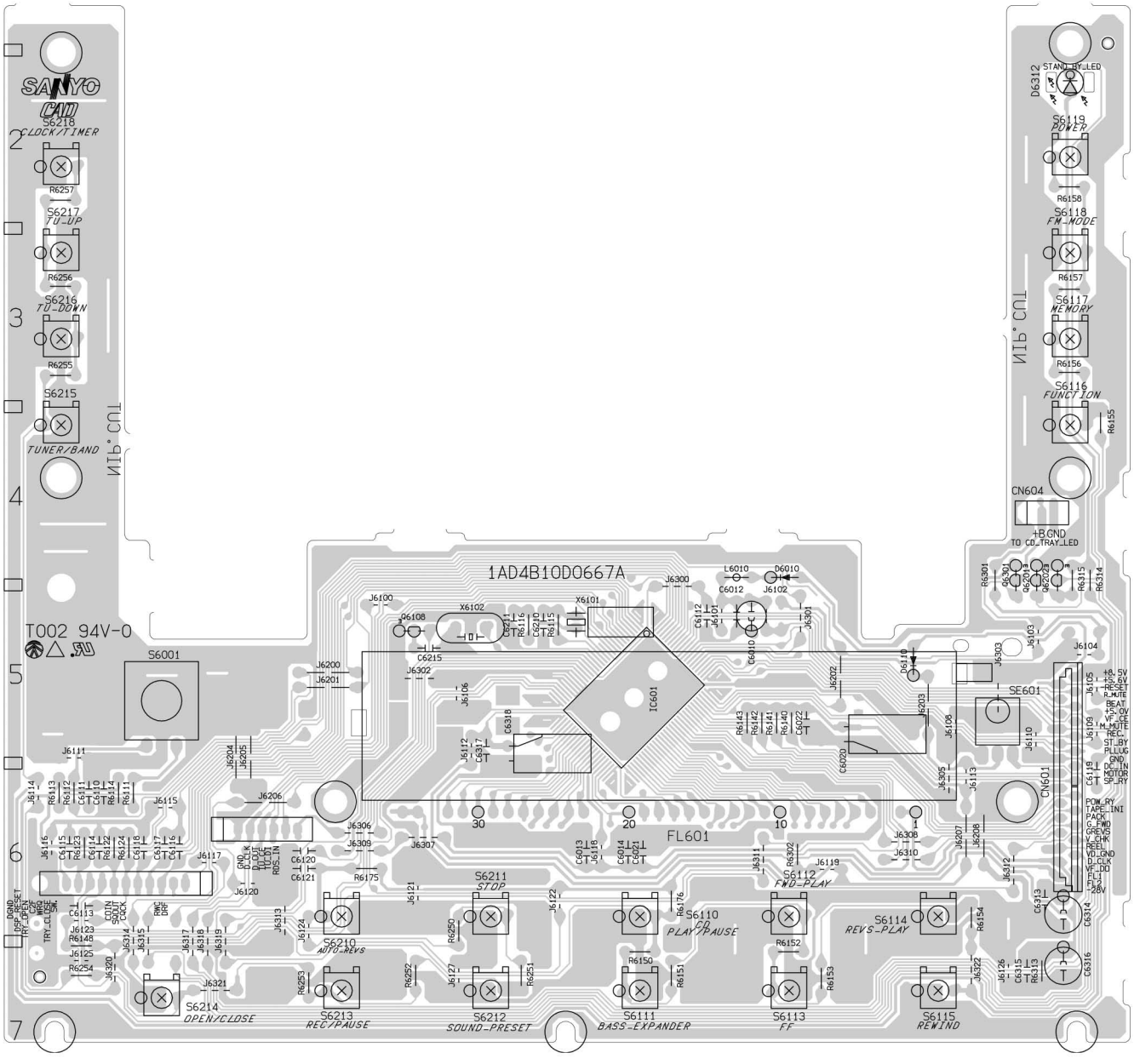

SANYO
CAT
S6218
LOCK/TIMER
R6257
S6217
TU_UP
R6256
S6216
TU_DOWN
R6255
S6215
TUNER/BAND
R6254
S6214
OPEN/CLOSE
S6213
REC/PAUSE
S6212
SOUND_PRESET
S6111
BASS-EXPANDER
S6113
FF
S6115
REWIND
S6114
REVS-PLAY
S6112
FWD-PLAY
S6110
CD PLAY/PAUSE
S6211
STOP
S6210
AUTO-REVS
S6001
T002 94V-0
1AD4B10D0660A
IC601
FL601
SE601
CN601
D6312
STAND_BY_LED
S6119
POWER
R6158
S6118
FM_MODE
R6157
S6117
MEMORY
R6156
S6116
FUNCTION
R6155
CN604
+B GND
TO CD_TRAY_LED
+8.5V
+5V
RESET
R_MUTE
BEAT
+5.0V
VFL_CE
L_MUTE
REC
ST_BY
PLLUG
GND
DC_IN
MOTOR
SP_RY
POW_RY
TAPE_INI
PACK
G_FWD
GREVS
W_CHK
REC
VD_GND
D_CLK
VFL_DO
FLI
FLI
-28V

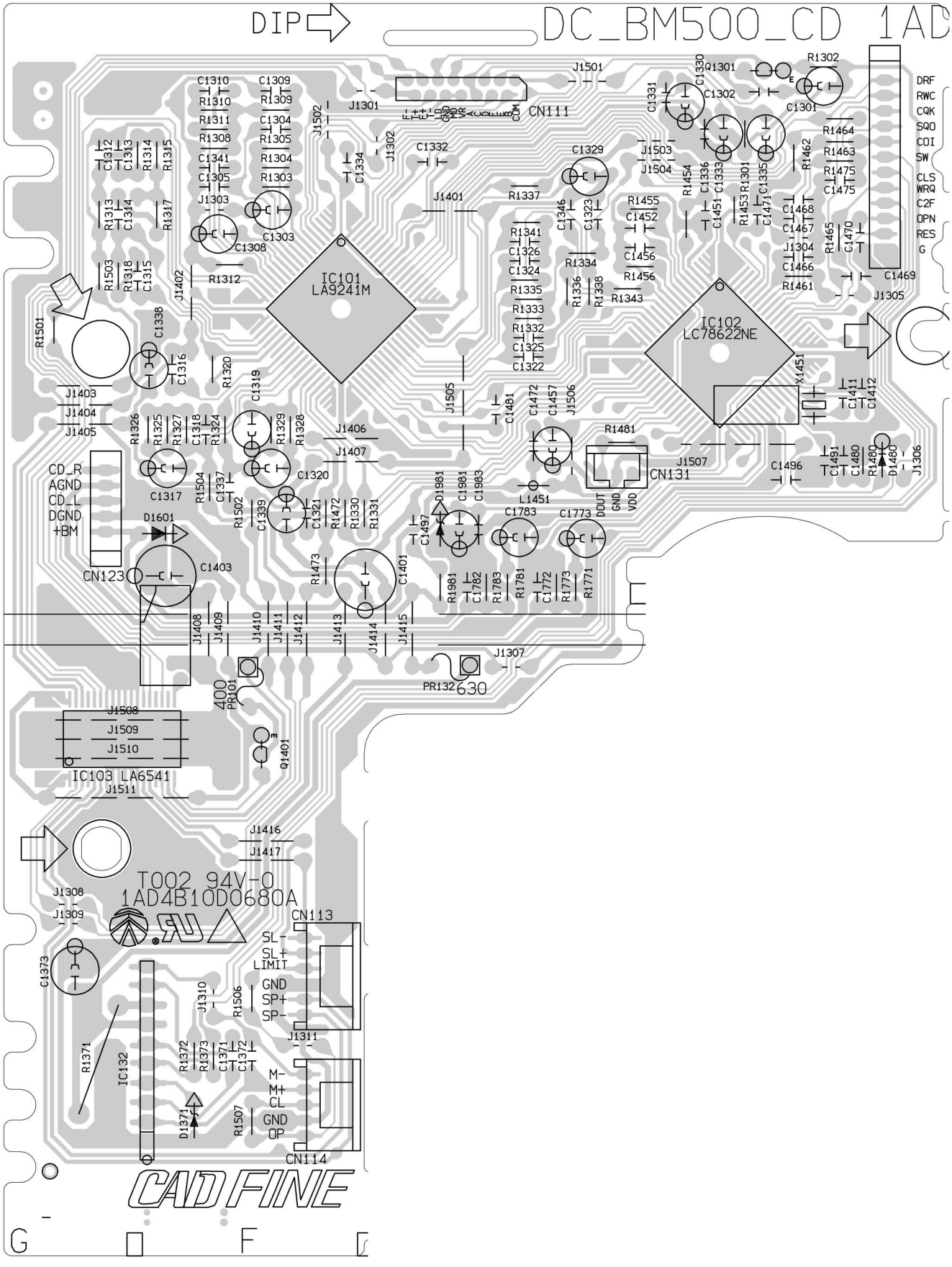
WIRING DIAGRAM (FRONT for KR)

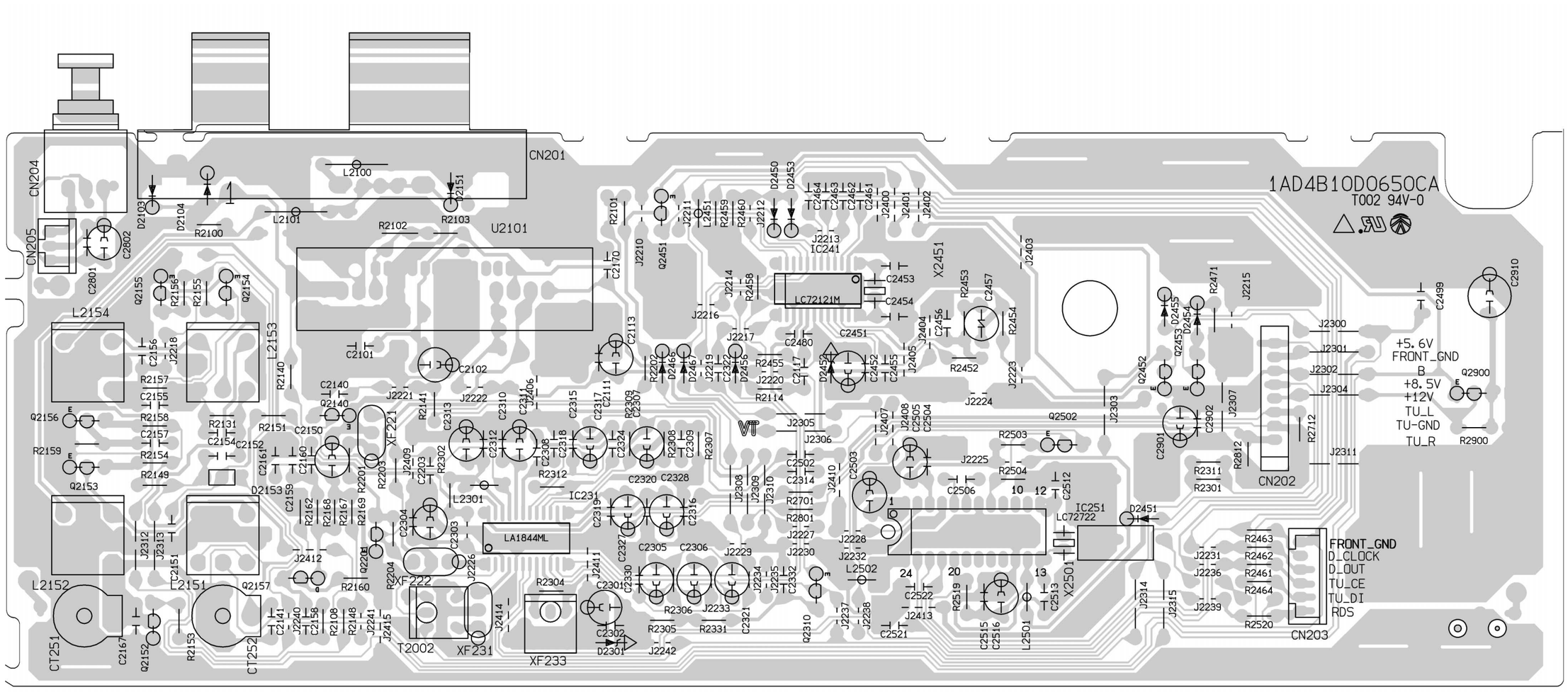


WIRING DIAGRAM (FRONT for TW)



WIRING DIAGRAM (CD)

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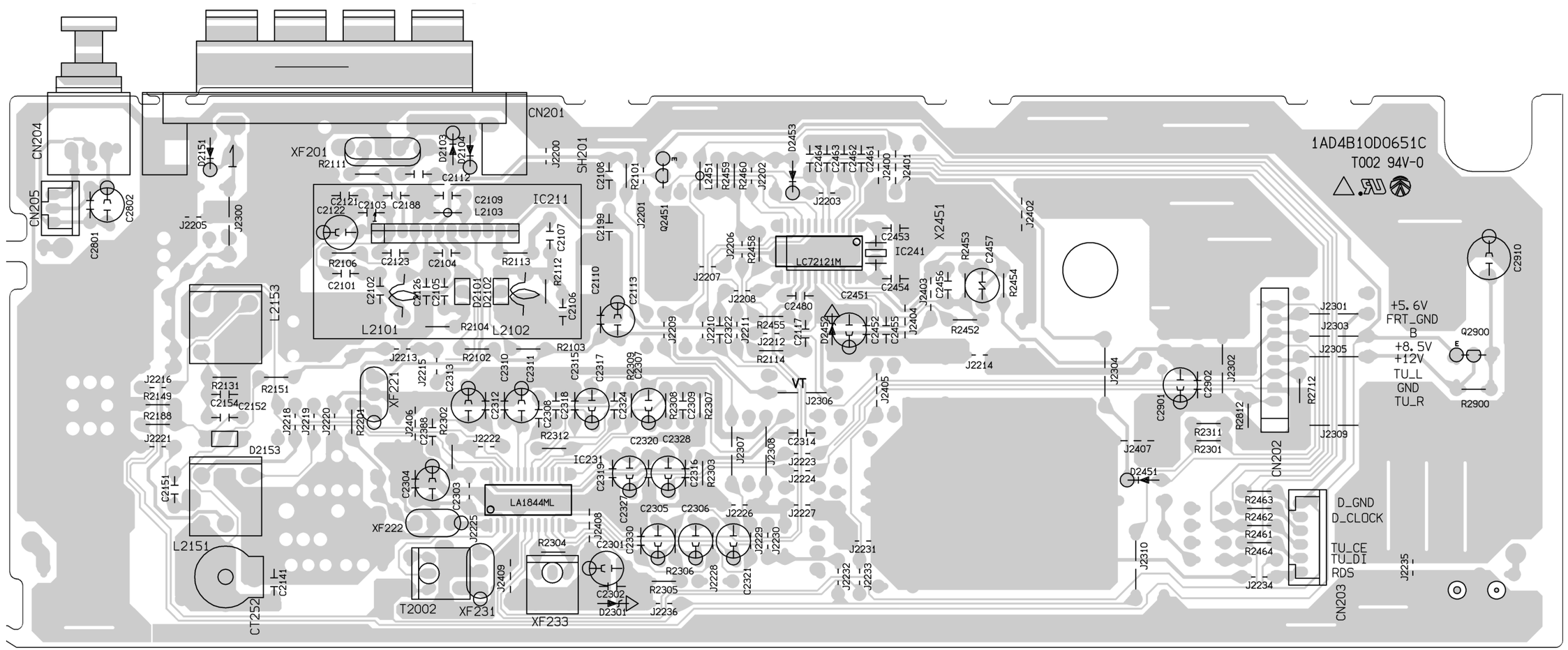
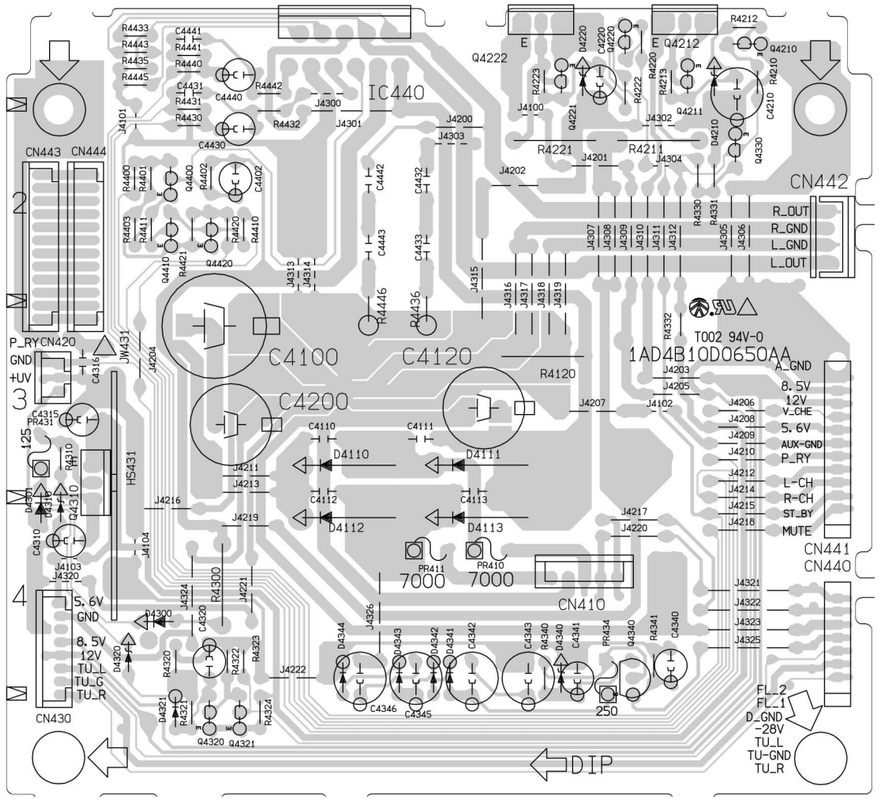
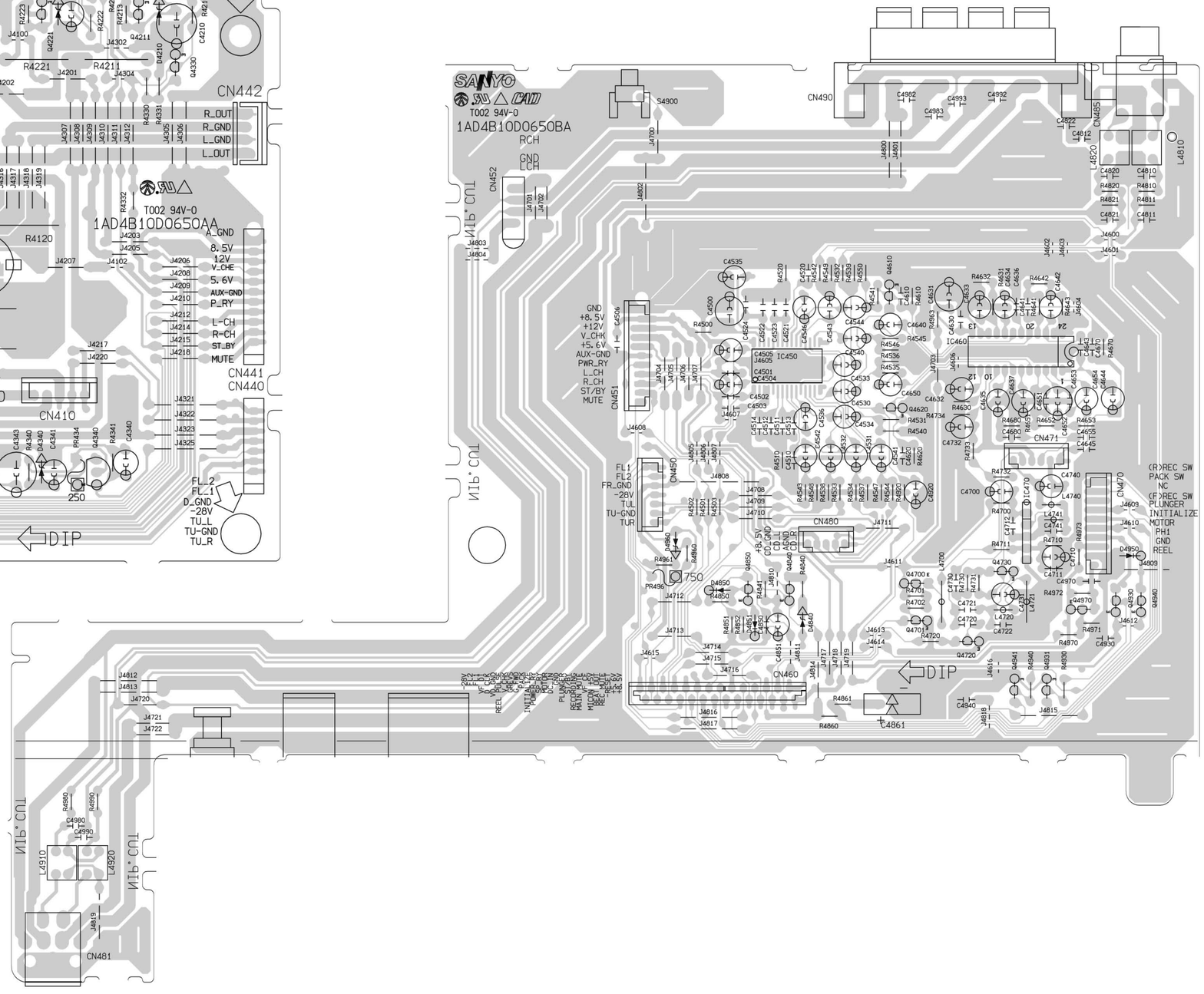
T002 94V-0
CN201
CN204
CN205
U2101
L2100
L2101
L2151
R2100
R2102
R2103
D2103
D2104
C2802
C2801
L2154
L2153
L2152
L2151
CT251
CT252
T2002
XF221
XF222
XF231
XF233
IC231
LA1844ML
IC241
LC72121M
X2451
IC251
LC72722
X2501
L2502
L2501
CN202
CN203
FRONT_GND
D_CLOCK
D_OUT
TU_CE
TU_DI
RDS
+5.6V
FRONT_GND
B
+8.5V
+12V
TU_L
TU-GND
TU_R
Q2900
R2900


1AD4B10D0651C
T002 94V-0
CN201
CN204
CN205
CN202
CN203
SH201
XF201
XF221
XF222
XF231
XF233
IC211
IC231
IC241
LA1844ML
LC72121M
X2451
L2101
L2102
L2151
L2153
T2002
CT252
VT
+5.6V
FRT_GND
B
+8.5V
+12V
TU_L
GND
TU_R
D_GND
D_CLOCK
TU_CE
TU_DI
RDS

POWER AMPLIFIER P.W.BOARD

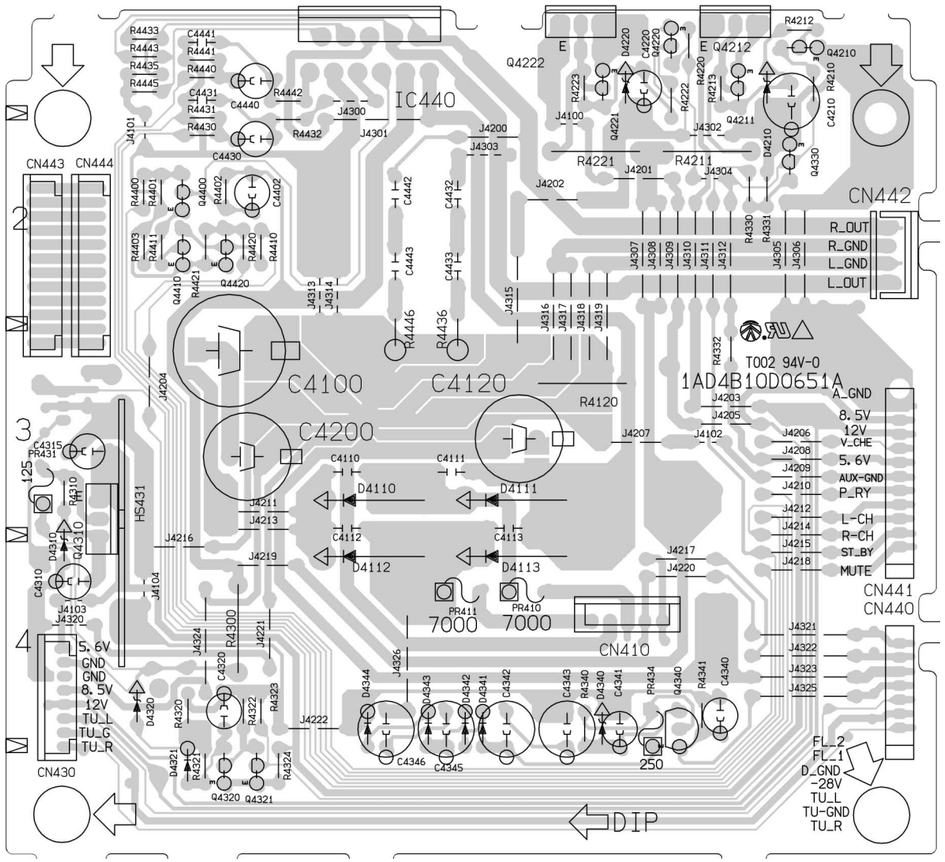


PRE AMPLIFIER P.W.BOARD



WIRING DIAGRAM (POWER AMPLIFIER & PRE AMPLIFIER for KR & TW)

POWER AMPLIFIER P.W.BOARD



PRE AMPLIFIER P.W.BOARD